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GOVERNMENT DOCUMENTS

CITY of HAMILTON

Proposal – Feasibility Study

STADIUM / ARENA

Principal Consultants:

Deloitte Haskins & Sells Associates

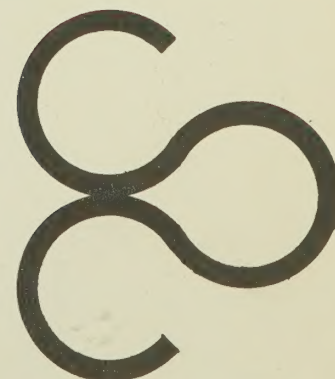
Roscoe, Stienstra, Haverty & Rankin

Hanscomb Roy Associates

Sub-consultants:

Group Eight Engineering Ltd.

Econometric Research Ltd.



Deloitte Haskins & Sells Associates
Roscoe, Stienstra, Haverty & Rankin
Hanscomb Roy Associates

Sub-Consultants:

Group Eight Engineering Ltd.
Econometric Research Ltd.

Management Consultants

3200 Royal Trust Tower
P.O. Box 283
Toronto-Dominion Centre
Toronto, Ontario M5K 1K4
(416) 368-7671
Cable DEHANDS

Mr. J. R. Jones
Secretary
Board of Control
City Hall
Hamilton, Ontario

June 17, 1980

Dear Mr. Jones:

PROPOSAL - FEASIBILITY STUDY - STADIUM/ARENA FOR HAMILTON

Thank you for the opportunity to submit our proposal to study the feasibility of new and/or expanded arena and stadium facilities for Hamilton. For many years the issue of a stadium/arena has been the subject of debate at City Hall, the media and for the residents of Hamilton. It is argued by many that a new arena and a larger stadium would bring economic, cultural, recreational and tourism benefits to the City as well as to the entire Hamilton-Wentworth Region.

As a growing community attempting to take its place alongside the other "major league" cities of Canada, the issue for supporters of these projects is not whether the arena and stadium should be built or enlarged, but rather where, how and when. Others challenge the need for new or enlarged facilities and oppose public sector involvement; and many, while favourable to the concept, point to the possible variety of uses, the problems of funding sources, site selection, parking, transportation and a host of other economic and social issues that require careful analysis.

Clearly, the time is right for a comprehensive study of all the issues and alternatives available. We believe that we are particularly well qualified to conduct the study. We have had previous experience with major sports facilities studies and in the course of these studies we have visited significant facilities in the United States and Canada. Our consulting team, whose qualifications and experience will be detailed later in the proposal, will be led by:

- . Frank Wolman, partner in the management consulting firm of Deloitte Haskins & Sells Associates and head of its Leisure Time Industries group.
- . Stan Roscoe, principal in the architectural and engineering firm of Roscoe, Stienstra, Haverty and Rankin.

- . Stewart Donnell, partner in the cost consulting firm of Hanscomb Roy Associates.
- . Gary Elliott, principal in the engineering firm of Group Eight Engineering Limited.
- . Atif Kubursi, Professor of Economics at McMaster University and the President of Econometric Research Ltd.

Members of this consulting team previously worked together successfully. Each team member has offices in Hamilton. None of the members of this team is involved as a principal of any other group competing for this assignment. In short, we feel that we have assembled a team whose qualifications, experience and understanding of Hamilton are second to none.

The study would be conducted in two stages.

. Stage I of the study would produce:

- . determination of the desirability of stadium/arena facilities from a "public interest" perspective
- . the preferred site(s) for the stadium and arena giving consideration to a variety of alternatives and facility requirements
- . a preliminary economic impact market and financial feasibility analysis
- . a preliminary analysis of cultural, social and recreational impacts and opportunities

. Stage II:

Assuming that Stage I indicates that the cost/benefit effects are satisfactory in the view of the Steering Committee, we will proceed with Stage II to develop, in relation to the preferred site(s), the following:

- . refined economic impact analysis
- . detailed financial feasibility analysis
- . refined market analysis
- . refined cultural, social and recreational impact analysis
- . recommendations for design
- . recommendations for operations

Assuming we are notified promptly so that we can commence the study in the first week of July, we could meet the target date of September 3, which we take to be a reference to Stage I. Assuming again that we had your immediate instruction to proceed with Stage II, we could complete it by October 22.

Mr. J. R. Jones

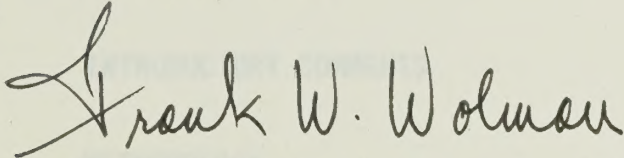
June 17, 1980

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The cost for carrying out the project would be \$67,000 for Stage I and \$33,000 for Stage II; a total of \$100,000.

We appreciate the opportunity to submit this proposal and look forward to conducting this study for you.

Yours very truly,

A handwritten signature in dark ink, reading "Frank W. Wolman". The signature is fluid and cursive, with the first letter of each name being capitalized and prominent.

Frank W. Wolman, M.A., F.C.A., C.M.C.
Partner

Input from Regional Panels and Interrelated Groups

Development Analysis (Site, Firm, Costs)

Market Analysis

Financial Analysis

Impact Analysis

Stage I Report

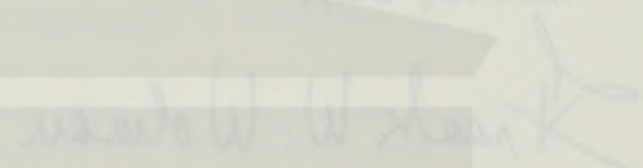
Stage II Report

Project Schedule

OVERALL PROJECT COST

STUDY TEAM

Mr. J. H. Jones
June 19, 1890
The cost for carrying out the project would be \$25,000 for Stage I and
\$23,000 for Stage II, a total of \$48,000.
We appreciate the opportunity to submit this proposal and look forward
to conducting this study for you.

Yours very truly,

Frank W. Johnson, M.A., F.C.S., C.M.E.
Partner

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INTRODUCTORY COMMENTS



INTRODUCTORY COMMENTS

- . We make it a practice to maintain a close working relationship with our clients during the course of the study. We therefore agree with your decision to appoint a Steering Committee to oversee the study. We suggest that the Committee also designate one member to be our day-to-day contact; in this way, many points may be discussed and readily resolved. Progress reports will be provided to the Steering Committee when appropriate.
- . In comparing alternative sites, we would draw from methods that we have developed and successfully used in other projects. We would use both quantitative and qualitative methods. In some projects, where we wish to compare special risks attached to particular alternatives, we may introduce probability factors. We cannot say at this point precisely which method we would use but we will recommend a suitable model once we are dealing with the specific issues.
- . We will consider pertinent data and information relating to existing comparable stadia and arenas in Canada and the United States, where appropriate. We will visit some of these, particularly those constructed after the City's 1976 study, "Report On Coliseum for City of Hamilton".
- . We suggest that liaison be established as soon as possible with senior officials from appropriate departments of the provincial and federal governments as well as the Ministers responsible, in order to establish:
 - . the availability of tourist, recreation, engineering and other data relevant to the study
 - . the possibilities of cost-sharing arrangements
 - . the extent of contributions that could be made available for construction of the facility or facilities
 - . conditions or requirements for cost-sharing
 - . the existence of federal or provincial guidelines as they may relate to facilities of this nature
 - . the possibility of participation by federal and provincial officials at steering committee meetings
- . The methodology that follows sets out in a straight-forward manner the key steps that we propose to take in completing this project. The work schedule diagram that follows provides a visual explanation of how we expect the study to progress, and the length of time required for each phase.
- . We have fully provided for the elements listed in the terms of reference, but we have departed from the listed study classifications in order to combine and include additional work elements.
- . We will prepare an executive summary of study highlights, conclusions and recommendations.

METHODOLOGY



METHODOLOGY

Our methodology sets out the steps we will take in this study. It may be practical to combine some steps and to make some modifications in sequence while the study is in progress.

The study would be conducted in two stages.

Stage I of the study would produce:

- . determination of the desirability of stadium/arena facilities from a "public interest" perspective
- . the preferred site(s) for the stadium and arena giving consideration to a variety of alternatives and facility requirements
- . a preliminary economic impact, market and financial feasibility analysis
- . a preliminary analysis of cultural, social and recreational impacts and opportunities

Stage II:

Assuming that Stage I indicates that the cost/benefit effects are satisfactory in the view of the Steering Committee, we will proceed with Stage II to develop, in relation to the preferred site(s), the following:

- . refined economic impact analysis
- . detailed financial feasibility analysis
- . refined market analysis
- . refined cultural, social and recreational impact analysis
- . recommendations for design
- . recommendations for operations

Initial Meeting With Steering Committee

- . Discuss background and history leading up to study
- . Establish liaison arrangements and reporting procedures in order to maintain close contact with the Committee
- . Obtain relevant data and sources of information from the Committee
- . Obtain suggestions of persons and agencies to be included on our interview list
- . Finalize approach to gain public input into Stage I of the study
- . Finalize details of work plan and schedule

Review Data and Literature

- . Assemble relevant background information on Hamilton, using existing sources
- . Assemble engineering data on Ivor Wynne Stadium
- . Review the studies undertaken in 1976, and other relevant studies and data available from the Committee
- . Review relevant data and information available from the Provincial and Federal governments and private sources, if available

Input From the General Public and Interested Groups

In order to ensure that decisions made by the City of Hamilton and the other levels of government are based upon the best available information and thus will be consistent with the "public interest", appropriate methods to gain input into the analysis from the general public and interested groups must be established. This input will not only help to shape final recommendations, but will also be the beginning of the process for gaining acceptance of those recommendations.

We would:

- . Establish a project office at City Hall where individuals may come to make their views known.
- . Invite written submissions from interested groups and the general public.
- . Advertise in the Hamilton Spectator and other local media for written submissions and invitations to drop into the project office. We suggest that the office be staffed at different times with members of the consulting team, as well as elected and non-elected municipal officials. The newspaper advertisements would outline the hours and schedule of the project office.
- . Review the procedures used in Stage I with the Steering Committee and consider other methods, such as an open public meeting for the beginning of Stage II.

DEVELOPMENT ANALYSIS

There are several major alternatives which appear available for consideration by the City of Hamilton:

1. Expand the existing stadium to satisfy current and future needs, and build a new arena adjacent to or near the existing stadium.
2. Expand the existing stadium but locate a new arena on a separate site, including the possibility of linking it to the new convention centre.
3. Construct a combined new stadium arena complex on a common site.
4. Build a new stadium and a new arena on separate sites.
5. Expand the existing stadium with no new arena.
6. Leave the existing stadium as is with a new arena either adjacent to it or on a separate site.

In considering these alternatives, development analysis will focus on two main factors:

- . site selection
- . facility requirements

Site Selection

- . Visit potential sites.
- . Invite submissions from real estate firms in Hamilton to determine the availability and price of appropriate sites.
- . Meet with representatives of the Hamilton Planning Department for consideration of zoning and official plan requirements.
- . Consider optimum size of the site by examining size factors for other stadia and arena facilities throughout North America.
- . Consider the following factors in the site selection process:
 - . location
 - . implications to capital and operating costs
 - . land availability and acquisition costs
 - . site development costs
 - . accessibility
 - . adjacent land uses, aesthetics
 - . proximity to complementary facilities
 - . municipal servicing, utilities
 - . opportunities for expansion
 - . parking availability, both on-site and off-site
 - . relationship to public transportation network
 - . developmental, historical or environmental constraints
 - . attitudes of nearby residents
 - . size, shape, topography
 - . additional stimulant to further development (e.g. hotel, retailing)

Facility Requirements

- . Consider the strengths, from an engineering point of view, of Ivor Wynne Stadium and the opportunities to enlarge it.
- . Study comparable stadia and arena facilities, their good and bad features, and any start-up or continuing problems encountered.
- . Interview operators, users and spectator representatives for their opinions on questions of design, space and equipment for a stadium and arena.
- . Evaluate the design requirements for a multi-use arena facility (sports, entertainment, social and meeting uses).
- . Determine requirements for ancillary structures such as parking garage, service spaces and drives, pedestrian ramps and walkways, bus parking areas, etc.
- . Determine design requirements for crowd control, seating configuration, site lines and automobile handling.
- . Given market demand, and realistic economic and design limitations, determine the optimum size of each of the preferred facilities, as well as seating capacities and locations.
- . Investigate all building and zoning by-laws that could affect facility development.
- . Determine requirements for scoreboard and turf in the stadium.
- . Investigate the requirements of related facilities such as restaurants, clubs, commercial outlets, concessions, and other components of an arena or stadium complex.

MARKET ANALYSIS

Feasibility studies depend upon thorough market analysis which includes the identification of present and potential market segments that can profitably be attracted, an accurate assessment of the market demand, and an assessment of competition.

- . Tour study area
- . Review potential public support for major league sports franchises
- . Identify needs of local amateur sports groups
- . Identify other potential user groups. Such markets may include, for example, labour, social, cultural, political and educational users.
- . Interview managers or operators of appropriate professional sports leagues and amateur sports groups
- . Interview representatives from various potential user groups identified. For example, groups and organizations we will interview will include:
 - . Professional Sports Organizations (existing in Hamilton, and potential)
 - . Amateur sporting groups
 - . Chamber of Commerce
 - . Hamilton and District Labour Council
 - . Business Associations
 - . Music/Entertainment promoters
 - . McMaster University and other educational institutions
 - . Harbour Commission
 - . Religious leaders
 - . Auto Club
 - . Tourist Associations
 - . Booking agents
 - . Association for the Handicapped
 - . Managers of Hamilton Place, Convention Center and other major facilities
 - . Representatives of major hotel chains
 - . Senior Citizen groups

MARKET ANALYSIS (cont'd)

- . We will determine additional market opportunities related to the specific site(s) selected. (e.g. Conventions, special events, etc.)
- . Consider the views of interested groups and the general public
- . Consider market implications of the close proximity of Hamilton to Toronto and Buffalo
- . Consider data of markets for comparable facilities
- . Prepare a supply inventory of complementary facilities and services, present and projected
- . Examine the existing level of tourism activity in the region and the benefits to tourism of the new or enlarged facilities

FINANCIAL ANALYSIS

Funding Sources

Cost-sharing among the three levels of government for major arena and stadium facilities in Canada is common practice if they are feasible and will have a beneficial impact on the community. In Stage I of this study, we will:

- . examine and document other cost sharing arrangements that have been made among the levels of government in other Canadian cities
- . interview the Ontario Ministers and senior staff of the Ministries of Culture and Recreation and Industry and Tourism to determine their potential support for the concept, and any conditions they may wish to set for cost-sharing (e.g. municipal ownership)
- . interview the federal Minister and other senior officials of the Department of Fitness and Amateur Sports to determine their potential support for the concept, and any conditions they may wish to set for cost-sharing
- . examine and consider potential for fund-raising programs from the labour and corporate sectors and from other private sources

Building Costs

Using data and criteria generated by the architectural and engineering disciplines, order-of-magnitude comparative estimates will be prepared for the alternative solutions. These estimates will broadly take into account all of the following:

1. Hard Costs
 - . Site Clearing
 - . Site Development
 - . Site Servicing
 - . Building Construction
 - . Parking Facilities
 - . Special Equipment
 - . Contingency
 - . Escalation Allowances
2. Correlated Costs
 - . Furniture & Fittings
 - . Signs & Marquees
 - . Public Participation Expenses
 - . Professional Fees
 - . Development Fees

FINANCIAL ANALYSIS (cont'd)

For the final recommended solutions and sites in Stage II of the study, more refined and detailed comparative cost estimates will be prepared, based on architectural and engineering conceptual designs and site specific conditions.

The approach to developing order-of-magnitude and the more detailed estimates will involve research into comparable and recent facility costs in Canada and the USA, where appropriate, reference to in-house data obtained from projects on which Hanscomb Roy Associates provided consulting services and other of which the team either has knowledge or will identify during the course of the study.

Assistance may be expected from the City to establish contacts in other cities where facilities exist on which the team may wish to obtain data.

In addition, a preliminary schedule and cash flow chart will be prepared for the selected alternatives, in graphic form.

Revenue, Operating Expense and Cash Flow Projections

In Stage I, we would prepare preliminary projections of revenues, expenses, net income and cash flows.

After selecting the preferred site(s), in Stage II we will develop the projected income statements and the expected "bottom line" cash flow results for the first three years of operation.

Revenue Projections

- . Determine ticket prices by major users and seat location
- . Project attendance and ticket revenues, net after tax for major users
- . Project frequency of use, charge bases, (rental rates, admission charge) for other categories of use for each period of the year
- . Project other attendance related revenues (e.g. food and beverage concessions)
- . Project additional revenue sources (e.g. sports equipment and souvenirs, advertising displays)

Operating Expense Projections

- . In Stage II of the study, full and complete operational cost projections will be prepared for the selected alternatives. These will take into account all of the following:

- . All administrative costs
- . Contracted services costs
- . Insurances
- . Advertising/Promotion

Operating Costs

- . Fuel, power, light
- . Janitorial services
- . General building maintenance and repairs
- . Equipment maintenance and repairs
- . Taxes & other levies

The approach to developing these projections will be similar to that for capital costs, with reliance placed on objective interpretations of historical data of similar facilities, all identified in the research undertaken in Stage I of the study. Suitable liaison will be made with cities operating similar facilities to ensure that realistic projections are made. Due care will be taken in examining the research sample for conformity or non-conformity with current and recommended energy conservation standards and adjustments made to suit, coupled with any geographically related specifics that would require modification for a Hamilton location.

These projected expenses will be presented on an annual basis.

Ownership and Management

The question of ownership and management of the alternatives considered will be undertaken in Stage II of the study. We will:

- . analyze the ownership-management situation in similar centres across Canada
- . consider the advantages and disadvantages of both private and public ownership of the land, facilities, and/or sports franchises
- . consider the advantages and disadvantages of a public-private partnership in the ownership of the land, facilities and/or sports franchises

IMPACT ANALYSIS

Public acceptability and support from all levels of government will be contingent upon the extent to which the arena and stadium would add to the economic and social well-being of Hamilton. This aspect of the study is thus of great importance.

Economic Impact

Economic impact will be assessed in terms of a consistent input-output model for the Niagara region scaled to reflect more accurately the economic base of Hamilton. Economic impact will be assessed, with particular reference to:

- . temporary benefits resulting from capital expenditures to develop the site(s) selected
- . indirect benefits emerging from the inter-industry network of purchases and expenditures necessary to develop the site and facilities
- . incremental income for employees, generated by the increased capacity of the stadium and the proposed arena, including long-term maintenance costs
- . direct, indirect and induced output effects
- . jobs created during the construction phase as well as for the long-term maintenance and operation of the facilities
- . benefits to local service industries that will sustain the development and operation of the facilities, and to tourism and other complementary facilities that will receive synergistic benefits
- . income generated by the facilities to the City of Hamilton in the form of taxes, licencing fees, parking revenues and so on. Other tax revenues will accrue to the Provincial and Federal governments. The magnitude of these extra taxes to the other levels of government might form a basis for their funding support.

Social, Cultural, Recreational and Environmental Impacts

The impact of an enlarged Ivor Wynne Stadium and a new arena on the enjoyment, recreation and self-image of Hamilton residents is a necessary part of a comprehensive analysis of the issues and alternatives.

- . We will consider the impact of each of the sites analyzed on the surrounding neighbourhood or district, (looking at parking, traffic, noise and similar criteria).
- . Each site alternative will be analyzed for its compatibility with nearby development, both existing and potential.
- . We will also consider the concept of the facilities themselves from a "public interest" perspective, looking particularly at:
 - . enhancement of quality of life, and opportunities for recreation, culture and greater community pride
 - . opportunities for the development of amateur sports and amateur sporting events (Pam-Am Games, Commonwealth Games, international hockey, etc.)

PREPARE AND PRESENT STAGE I REPORT

- . Set out findings, analyses, conclusions and recommendations relating to the desirability and feasibility of arena/stadium facilities in Hamilton, and the preferred site(s) selected
- . Review Stage I report with the Steering Committee

PREPARE AND PRESENT STAGE II REPORT

- . If there is public support for the recommendations of Stage I, we will proceed to focus on the preferred site(s) and refine our analysis to include detailed suggestions for design and operations
- . Complete all work required and prepare Stage II report
- . Review Stage II report with the Steering Committee

FOLLOW-UP

- . We would make arrangements with you by separate contract for follow-up and implementation assistance, if required.

PROJECT SCHEDULE

BY WEEK NUMBER

	STAGE I																STAGE II			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
INITIAL MEETING WITH STEERING COMMITTEE	X																			
REVIEW DATA AND LITERATURE	X	X																		
INPUT FROM THE GENERAL PUBLIC AND INTERESTED GROUPS			X	X	X	X						X	X							
DEVELOPMENT ANALYSIS (SITE, FACILITIES)		X	X	X	X	X					X	X	X	X						
MARKET ANALYSIS		X	X	X	X						X	X	X							
FINANCIAL ANALYSIS					X	X	X						X	X	X					
IMPACT ANALYSIS						X	X	X						X	X					
PREPARE AND PRESENT STAGE 1 REPORT							X	X	X											
PREPARE AND PRESENT STAGE 2 REPORT																	X	X	X	X
FOLLOW-UP																				
MEETINGS WITH STEERING COMMITTEE	X		X		X		X		X		X		X		X					

NOTES:

- . The study would commence in the week following notification of acceptance of our proposal
- . Progress would depend on prompt and satisfactory response from the Steering Committee

OVERALL PROJECT COST



OVERALL PROJECT COST

We have calculated our fees and out-of-pocket expenses (including travel to the United States and other cities in Canada) for the study as follows:

FEES		\$89,000
EXPENSES AT COST		<u>11,000</u>
TOTAL PROJECT COST		
	Stage I	\$67,000
	Stage II	<u>33,000</u>
		<u>\$100,000</u>

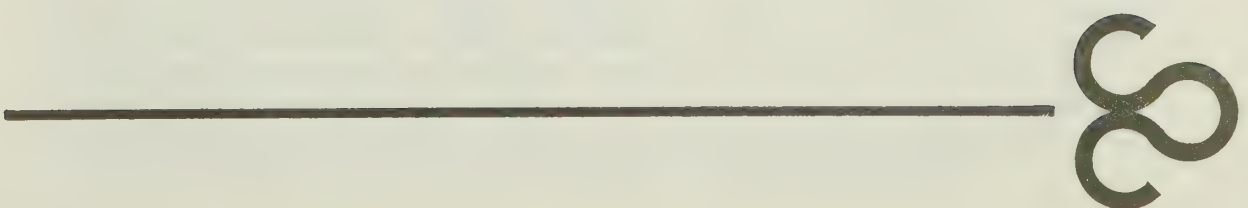
METHOD OF BILLING

Upon award of the contract we would invoice for a start-up fee of 10%. We would bill for time and expenses incurred during each two-week period. At the end of Stage I we would adjust our total billing to that date to 2/3 of the Total Project Cost.

During Stage II, we would continue to charge on a bi-weekly basis, subject to a final billing of 10% upon completion of the full study.

Accounts are due when rendered.

STUDY TEAM



STUDY TEAM

The lead consulting firm for this project would be Deloitte Haskins & Sells Associates, and the project would be directed by Frank Wolman, M.A., F.C.A., C.M.C., a partner in the firm. Mr. Wolman has experience in directing many market, financial, and economic planning studies for a wide range of tourism, cultural and recreation projects. Included in this work are feasibility studies such as: Sports and Recreation Complex (Stadium) for the Toronto-Centred Region; Stadium Requirements Study, Saskatchewan Roughriders Football Club, City of Regina; and an arena in Grand Island, New York. He has visited stadia in the United States in connection with the above studies.

The Hamilton-based architectural and engineering firm of Roscoe, Stienstra, Haverty and Rankin would be a key member of the consulting team. This firm has been involved in the successful development of a wide variety of projects in the region since 1951, including six recreation centres. Stan Roscoe, B. Arch., M.R.A.I.C., would head this group and assume the responsibility of local liaison.

He has already visited stadia and arenas in the northern United States for a project where a preliminary facility design was prepared. This experience should prove invaluable for this study, particularly given the very serious time limitations involved.

Hanscomb Roy Associates, is a national and international firm of consulting quantity surveyors and cost consultants whose Hamilton office was established in 1969. They are the Canadian leaders in the life-cycle cost analysis field. Among projects in this category are the Provincial Office Building in Dauphin, Manitoba, the Rochester City Hall, the Calgary Law Courts, and all government facilities in the State of Alaska. Fiscal responsibility makes it necessary to consider capital and maintenance costs over the life of a proposed facility as opposed to considering only initial costs. Hanscomb Roy Associates was responsible for capital cost control of the Art Gallery of Hamilton, The Hamilton Trade and Convention Centre, Provincial Office Tower, and St. Peter's Hospital all of which were tendered on budget. Other cost planning, budgeting and control services performed include the Commonwealth Games Stadium and Swimming Pool facilities in Edmonton, the Nepean Sports Complex (Ottawa) and the University of Toronto Athletic Complex. The Hanscomb Roy group will be led by Stewart A. Donnell, F.R.I.C.S., M.C.I.Q.S., Partner, responsible for the Hamilton operations.

Group Eight Engineering Ltd., is a Hamilton based engineering firm and would be a sub-consultant to Roscoe, Stienstra, Haverty and Rankin. the firm was originally established as Walter Eull & Elliot Ltd. in 1955 and has been involved in many significant Hamilton projects, some of which are: Sherwood Heights Secondary School, St. Peter's Hospital, Tridon Manufacturing and several projects at Dofasco & Stelco and a recent Structural Survey Report on the existing Ivor Wynne Stadium. Mr. Gary Elliot, P. Eng., would head this group whose responsibilities to the Architects would be Mechanical & Electrical input.

Analysis of the economic impact of stadium and arena construction on the City of Hamilton would be undertaken by Econometric Research Ltd., led by Professor Atif Kubursi, Ph.D. of McMaster University. In recent years Professor Kubursi's projects have included:

Impact study of the proposed convention centre in Toronto.

A forecasting model of tourism in Ontario.

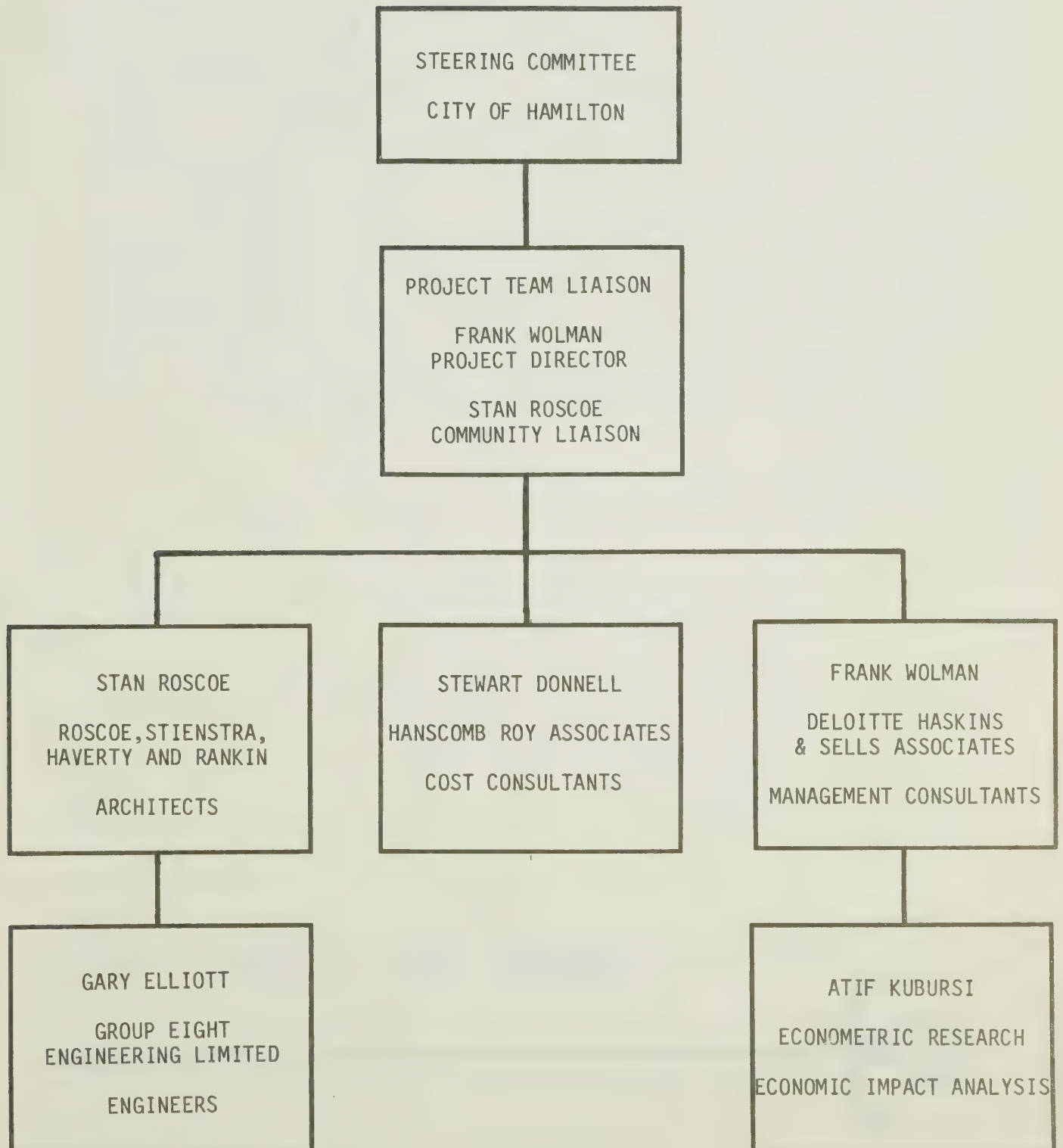
Analysis and determination of the impact of different provincial government expenditures in Ontario by Program and Department.

Up-dating of the provincial input-output table of Ontario.

Impact of tourism on the economy of Ontario and its region.

Members of this consulting team have worked together successfully for many years.

PROJECT ORGANIZATION



DELOITTE HASKINS & SELLS ASSOCIATES



STUDY TEAM LEADERS

FRANK WOLMAN, M.A., F.C.A., C.M.C., directs all studies. His direction involves active participation in and supervision of all aspects of field work and includes control of research, analysis and report writing. He is a partner in the firm and is responsible for all consulting projects. He is usually the study teams's principal contact with you.

Mr. Wolman is a chartered accountant who has practiced as an auditor and business advisor for many years. He conducted his first consulting assignment in the tourism industry in 1954 and has developed an expertise in all of the leisure time industries since then. He established the first monthly trend of business statistical reports for the hotel industry in Canada in 1964.

Mr. Wolman brings extensive business and market knowledge of tourism and tourist attractions to our engagements. At some point in financial forecasts, judgment must fill in where even the deepest research fails to provide a clear look behind the veil of the future. His judgment has proven successful, for example, in New Brunswick where all new projects under its Tourism Incentives Program have been reviewed by Mr. Wolman for financial viability; each one that he has recommended and that has been implemented (about 12-15), has been successful. This is impressive in a province where tourism opportunities are not abundant.

Mr. Wolman has studied many large scale projects (e.g. stadiums, convention centres) and many small ones where a keen sensitivity to markets is critical.

This skill and judgment means that you will be more confident in the conclusions drawn and recommendations made. You will then be more effective in following through with your next steps.

Mr. Wolman created the Attractions Index at the start of 1979; it has already become an important new business indicator which is helping the attractions sector of the tourism industry to gain its deserved status. Attractions are the neglected sector in our tourism and recreation industries - for example, although there are associations for hotels, motels, restaurants, hostellers, hunters, golf courses, etc., etc., there are almost no associations to speak for and increase the importance of tourist attractions. This gap has contributed to Canada's failure to achieve its tourism potential.

Mr. Wolman is a specialist with regard to tourism attractions. He has been an invited speaker to national and international groups including the Tourism Industry Association of Canada, the Association of Hotel Accountants and The Travel Research Association.

His creativity and knowledge will contribute to the ideas and programs for your project, and should increase its prospects for success.

DON MacARTHUR, M.B.A., Director of Tourism Consulting for Deloitte Haskins & Sells Associates in the west, has had extensive working experience in western and northern Canada. His tourism career began with the Manitoba Tourist Branch in 1967 and tourism has been his field since that time. In 1970, he was in charge of tourism marketing for the Northwest Territories (TravelArctic).

As well as his extensive tourism experience, Don had the opportunity with the Federal Metric Commission, to direct preparation of long-range plans for metric conversion of 12 industry sectors (including tourism), through operation and activities of 14 joint task forces, representing approximately 200 industry, government, consumer, and labour organizations.

Before Don MacArthur and Frank Wolman organized Wolman MacArthur Associates Inc. and prior to merging their practice with Deloitte Haskins & Sells Associates, Mr. MacArthur was responsible for tourism development planning for Yukon, Northwest Territories and the western provinces with the Canadian Government Office of Tourism (CGOT). He has a wide-ranging knowledge of the problems and opportunities of tourism in western Canada, and as well, the professional management training required to develop technical business skills and management approaches in tourism.

FRANK W. WOLMAN

Partner
Toronto

EDUCATION

B.Com.	Commerce and Finance, University of Toronto, 1947
M.A.	Economics, University of Toronto, 1951
C.A.	Institute of Chartered Accountants of Ontario, 1950
F.C.A.	Institute of Chartered Accountants of Ontario, 1970
C.M.C.	Institute of Management Consultants of Ontario, 1968
M.C.A.B.V.	Canadian Association of Business Valuators, 1972

PROFESSIONAL MEMBERSHIPS

Institute of Management Consultants of Ontario
The Travel Research Association
Tourism Industry Association of Canada
Canadian Parks/Recreation Association
Canadian Futures Society
Institute of Chartered Accountants of Ontario
Society of Management Consultants
Canadian Association of Business Valuators
Arbitrators Institute of Canada

PROFESSIONAL DIRECTORSHIPS, COUNCIL AND COMMITTEE MEMBERSHIPS

Council member of the Institute of Management Consultants of Ontario,
1972 - 1973

Member of the Liaison with Government Committee of the Institute of
Management Consultants of Ontario, 1974 - 1975

Director of the Canadian Association of Management Consultants,
1972 - 1975

Founder and Director of the Ontario Association of Hospitality
Accountants, 1968 - 1969 and 1978 - present

Director of the Convention & Tourist Bureau of Metropolitan Toronto,
1974 - present

Member of the Ryerson Polytechnical Institute Applied Geography
Advisory Committee, 1974 - present

Council member of the Institute of Chartered Accountants of Ontario,
1968 - 1972

Member of the Canadian Institute of Chartered Accountants Accounting
and Auditing Research Committee, 1964 - 1967

Member of the Borough of York Historical Committee, 1978 - present

Director of Canadian Chapter of the Travel Research Association, 1978 -
present

D. J. MacARTHUR

Director, Leisure Time Industries
Western Canada

Education:

- . M.B.A. - University of Western Ontario, 1975
- . B.A. - History and English, Brigham Young University, Utah, 1967

Areas of Specialization:

- . tourism
- . marketing
- . business policy/corporate planning
- . human resource management

Experience:

- . Mining Industry - 6 years
- . Government - 10 years
- . Consulting - from 1978

Prior to assuming his present position as Director, Leisure Time Industries in western and northern Canada, Don was a Principal and Project Coordinator for Wolman MacArthur Associates Inc. He joined Deloitte Haskins & Sells Associates in June, 1979 upon the merger of their firms.

Don's northern experience began in the Yukon in 1957. From 1960 - 1965, he worked as a surveyor and miner in Port Radium, Northwest Territories, and Uranium City, Saskatchewan. Following completion of his B.A., he taught school in northern Manitoba and then joined the Manitoba Government Department of Tourism, Recreation and Cultural Affairs.

He gained much of his tourism experience prior to entering consulting through various positions with provincial and federal governments. In the Northwest Territories, he was head of tourism marketing for the Department of Economic Development. With the Federal Government, he held the positions of: Assistant Director with the Metric Commission, Industry Officer with the Anti-Inflation Board, and immediately prior to forming Wolman MacArthur Associates, Regional Planning Officer with the Canadian Government Office of Tourism for the western provinces and both territories.

Memberships and Associations:

Member: North American Society for Corporate Planning
The Travel Research Association
Tourism Industry Associations of Canada
American Marketing Association
British Columbia Recreation Association
Yukon Visitors Association

DELOITTE HASKINS & SELLS ASSOCIATES

DH&SA is a Canadian management consulting practice originally established in 1956. As a completely independent and major partner in Deloitte Haskins & Sells International, our consultants are able to draw on the resources of affiliated firms in over 60 countries. We have served a wide variety of clients in government, industry and commerce.

The Leisure Time Industries group operates in Canada as part of Deloitte Haskins & Sells Associates and has highly qualified associates in many specialized areas.

THE LEISURE TIME INDUSTRIES GROUP

Industrialized nations over the past few decades have experienced several common phenomena. These include urban concentration, a shorter work week, more disposable income for more people, and technological advancements both at home and in the workplace. These phenomena have combined to mean steadily increasing leisure time, and the choices of how and where to use that time.

It has been said that the sociological problem of this age is no longer work but free time. Although perhaps overstated, leisure time nonetheless does concern a wide variety of people with many different interests. Businesspeople attempt to create facilities, products and services to meet leisure time needs. Governments attempt to support leisure time industries because of their importance in generating jobs, income and taxes. They are labour intensive and often create employment opportunities in rural areas and for the ethnically and socially disadvantaged. As an industry, tourism is a renewable resource; it is an important source of foreign exchange and is thus sometimes referred to as an export industry.

Leisure time industries are those in the areas of:

TOURISM

RECREATION

HOSPITALITY

ENTERTAINMENT

CULTURE

SHOPPING

Consulting Services Provided

Our Leisure Time Industries group functions on a consulting basis to meet the needs of people, industry, and government as they relate to leisure time. It is our role to:

- . identify and analyze needs and opportunities
- . recommend practical and timely solutions, and
- . guide the implementation of accepted recommendations.

Although we conduct a wide range of services for the leisure time industries, most assignments that we have undertaken fall into the following categories:

- | | |
|--|-------------------------|
| . market analysis | . economic impact |
| . financial feasibility | . mitigative measures |
| . economic opportunities | . long range planning |
| . development and marketing strategies | . operations management |
| | . valuations |

The Value of Our Consulting Services

Our services offer:

- . AN INDEPENDENT POINT OF VIEW - We are independent and objective and therefore bring a fresh and impartial point of view to a project.
- . A SOURCE OF TIME - We offer our concentrated time and attention so that an organization's special needs and opportunities receive the prompt attention they deserve. Engaging us to deal with particular matters may enable our client to eliminate the necessity of taking specialists permanently on staff and adding to fixed overhead. It is a decision to rent, not buy.
- . SPECIAL KNOWLEDGE AND EXPERIENCE - In the early days consultants were referred to as "efficiency experts". We question whether there are experts in any field today; but there are specialists. And through a great diversity of assignments in the leisure time industries, we continue to develop our special knowledge and experience.
- . A MULTI-DISCIPLINARY APPROACH - To develop an effective course of action often involves many areas of specialization. Some lie beyond our own range of skills. Thus we have established working relationships with qualified associates in many related fields to call on whenever necessary.
- . CREATIVITY - Many engagements require a highly innovative approach; problems are better pursued when the solutions are not limited to traditional answers. There is the need to look ahead, not only for expected changes, but for the "discontinuities" that will continue to arise in a turbulent world.
- . A CATALYST TO ACTION - An organization often delays making needed changes because of traditional practices or conflicting priorities. A competent outside party can act as a catalyst to initiate action.

REPRESENTATIVE PROJECTS

The following representative projects demonstrate the experience in recreational and other leisure time industries of members of our group.

Sports and Recreation Complex - Ontario

This study was commissioned to analyze the economic feasibility of a stadium for Metropolitan Toronto for professional and amateur sports and to consider the benefits of such a facility to the community. This involved studying the wide range of sports, entertainment, and other activities that could be held at the proposed stadium, assuming that it was (a) covered by a dome for year-round weather control, or (b) open and thus limited to a seasonal operation. The study also considered site selection, facilities design, management organization and financing.

Stadium used by Canadian Football League Team - Saskatchewan

This feasibility study for the expansion of Taylor Field, Regina, examined the financial relationships of stadium size, seating configurations and ticket prices. It took account of future sources of revenue from league home games and other local activities.

Sports Complex - New York State

A sports and exhibition complex was planned consisting of both executive and championship golf courses, an arena, tennis courts and a marina. Land surrounding the golf courses was to be developed as mixed residential housing--single family homes, garden apartments and condominium sites. Our study examined the feasibility of the land-based components.

Yacht Club, Golf and Country Clubs - Ontario

Almost all aspects of club operations were included in these projects. We have installed complete accounting, control and budgetary systems, and introduced the first Canadian application of a punched-card chit system for member billing and revenue analysis. The basic system has since been widely adopted by other clubs.

Ski Resort - Alberta

A planned ski resort development was evaluated for potential investment.

Auto Sport - Alberta

This evaluation was conducted on an automobile race track to develop attendance and revenue projections. These estimates were used in a presentation to the securities commission to assist the company in going public.

Tourism Industry Development Strategy and Travel Survey - Yukon Territory

In order to provide a long-range direction for tourism and to integrate the efforts of Yukon's tourism industry, the Territorial and Federal governments called for a strategic plan. This year-long study, which involved public meetings throughout Yukon, has become the guide to tourism development in the Territory. A follow-up project involved a travel survey in which we managed the study design and analysis of a multi-mode exit study.

Mitigative Measures Study - Yukon Tourism Response to the Alaska Highway Pipeline

During our work on the Yukon Tourism Development Strategy, approval of the Alaska Highway Pipeline was announced. We prepared the Action Plan to aid the Yukon Government and the tourism industry to anticipate and prepare for the problems and opportunities of this massive project. A follow-up study analyzed the potential of tourist attractions based on the historical theme of the Alaska Highway.

Northwest Territories Marketing Strategy

We designed the Northwest Territories tourism marketing strategy for the 1970's. Group tour development was given priority. The U.S., Canadian, and overseas markets were addressed through tour wholesalers resulting in significant increased tourism business to small communities. Marketing, planning and programming support for individual tourism businesses was provided including pricing advice, promotion, publicity and advertising campaigns. We initiated support by travel agencies, tour wholesalers, outdoor and travel writers for these businesses (e.g. trapline tours, north pole flights, many lodges and camps, boat cruises, native arts and crafts, outfitters, etc.). We also initiated resident involvement with publications and grass roots market research. A continuous facility/services cataloguing program was developed and we also introduced product awareness seminars to federal field offices in the U.S. and Canada. A sales aid film for international distribution was produced.

Tourism Strategy and Planning Study - New Brunswick

The purpose of this study was to recommend an interim strategy for development of the tourism sector of the New Brunswick economy. The primary objective was employment and income creation. Secondary objectives included achievement of social benefits through preservation of the Province's natural and cultural heritage and creation of outdoor recreation opportunities. In addition to an analysis of supply and demand components, we studied the functions of research and planning, development controls, government financial assistance, training programs and community involvement.

Tourism Development Incentive Program - New Brunswick

We are advisors to New Brunswick on its program to provide financial incentives to the private sector. It is our role to examine individual tourism development projects considering theme, market, location, site, size and type of facilities, management capability and financing. We have examined about 40 such projects covering a wide range of tourist attractions and accommodation facilities. Those projects that have proceeded following our recommendation for their approval have met the province's success criteria.

Development Strategy for the Commercial Sector of a Major Provincial Tourism Destination - Ontario

This study was commissioned by the Province of Ontario to prepare a business development strategy for the commercial sector in a tourism-oriented community. We conducted a detailed analysis of all retail, accommodation, food service and entertainment facilities; assessed the demand for existing and potential services; examined the economic feasibility of a resort hotel; recommended and designed alternative concepts and evaluated the role of Ontario and Federal programs in implementing the proposed strategy.

Regional Tourism Plan - New Brunswick

This study of the Fundy Isles region was conducted to design an implementation program that would achieve optimum tourist business development. The aim was to balance job and income creation with enhancement of social and environmental conditions. Public participation was an important element in this project.

Long Range Planning

This study examined goals, objectives, needs and opportunities for the Convention & Tourist Bureau of Metropolitan Toronto. It looked five years ahead and addressed future needs and opportunities as well as current issues.

Canadian Travel Market Analysis

We directed the analysis of changes in travel patterns and demographics of the past decade for the preparation of a federal strategy to improve the international competitive position of the Canadian travel industry facilities and services.

Toronto Convention Centre - Ontario

The Metropolitan Toronto Board of Trade commissioned a study of a proposed convention centre in 1971. We analyzed site and market requirements, detailed facility requirements, management structure and policies, and recommended design considerations. As an update, in 1978, we were again engaged to review the current market for, and economic impact of, such a facility.

Winnipeg Convention Centre - Manitoba

During the planning phase, financial projections, based on market data developed by the city, were prepared for Winnipeg's convention centre.

Conference and Tourism Opportunities for Charlottetown - Prince Edward Island

As a component of an economic opportunities study for Charlottetown, Prince Edward Island, we analyzed the potential for a conference centre. We recommended steps by which conference and tourism opportunities could be effectively coordinated, unique local characteristics retained, the downtown could be revitalized, and cultural activities extended while at the same time holding capital outlays to a minimum.

Conference Centre - Ontario

A very large professional association with significant seminar and training needs owned a large acreage of secluded recreation land. We examined the financial feasibility of building a multiple use conference centre on the property.

College Conference Centre - Ontario

A magnificent old estate at King Campus, in the possession of Seneca College, was examined to determine the market potential and practicality of converting the estate into a conference centre.

Resort Facilities - Manitoba

We developed the Islandic settlement theme concept for the Gull Harbour resort in Hecla Island Provincial Park, 125 miles north of Winnipeg. The project was the only capital development that took place under the Travel Industry Development Program of the Canadian Government Office of Tourism. The resort is part of the long-term development plan for Manitoba's Interlake region.

Motel/Resort in a Provincial Park - New Brunswick

Mactaquac Provincial Park in New Brunswick is a magnificent and outstanding park - sometimes referred to as "Super Park". We studied the feasibility of a motel resort to be built there in harmony with the Park's program and natural features.

Resort Complex in the Round/Crooked Lakes Area - Saskatchewan

We examined the optimum site, tourist and resident markets, size and type of facilities, financial feasibility and funding alternatives for a resort complex in the Qu'Appelle Valley in the Round/Crooked Lakes Area.

Resort Hotel - Bermuda

A Canadian bank held the mortgage on a resort hotel which had fallen into arrears. We conducted a market study, financial feasibility analysis, prepared a formal business valuation, and examined and recommended options open to the bank.

Feasibility Study for a Hotel - Ontario

A Canadian company that builds and operates high quality hotels was interested in the business potential of a city that, until then, had been avoided by both hotel chains and independents. Our market analysis demonstrated a substantial need for a new hotel. It also identified the unique opportunities for linking it with a proposed cultural centre for the city.

Market Study for Unusual Hotel Concept - Ontario

A private investor developed a unique structural concept for a hotel and stadium complex in a major city. This study analyzed market opportunities.

Project Management for a Budget Hotel Chain - Ontario

We were retained by a private developer to assist him in coordinating the planning of all non-construction aspects of a new hotel. We prepared a pre-opening budget and schedule of activities; designed the budgetary control system; updated cash flow projections; coordinated public relations and advertising; advised on the selection and purchase of all furniture, fixtures and equipment; and assisted in management recruitment.

Hotel Redevelopment - Newfoundland

This was a study for Canadian National Hotels of the feasibility of demolishing a major old hotel and erecting a modern new hotel facility on the same site.

Tour Boats - New Brunswick; Ontario

The feasibility of tour boat operations depends on detailed analyses of the physical features of the boat (capacities, seating, services, speed, draughts), water and shore factors (docking, hazards, wind, waves, temperature, weather), route alternatives, markets, labour resources and regulations. Each such study is clearly unique. We have conducted studies for paddlewheelers, historical replica and restored vessels and a variety of others.

Handcraft Industry - British Columbia

The handcraft industry has been an important component of our tourism strategy and economic opportunities studies. In British Columbia we conducted a province-wide study of the handcrafts industry in terms of craftsmen, markets, production and marketing methods, training, government programs, economic impact, etc.

Management Salary Review

We reviewed the remuneration (salary and benefits) program for senior management of a major convention and tourist bureau.

The Canadian Tourism Industry

We reviewed the manpower problem of service industries and recommended action by industry associations to improve the labour situation.

Travel Promotional Literature - National

We designed, wrote, photographed for and laid out brochures, and arranged printing and distribution for government and private sector businesses.

Facility Utilization - National

The Canadian tourist plant was analyzed as a basis for a promotion initiative to increase tourist business to rural areas.

Canadian Piano Industry

This project, sponsored by a Japanese manufacturer and trading company, studied the Canadian market potential for imported musical instruments.

National Association for Photographic Art: A Marketing Plan

With voluntary management and very rapid growth, this organization sought our assistance in identifying member expectations and needs and in planning a strategy to better satisfy these demands.

Attractions - National

We prepared a paper on Attractions for presentation to the 1977 Tourism Development Conference. This meeting was attended by Deputy Ministers and other senior government officials from the Federal, Provincial and Territorial tourism departments.

Mine Attraction - Ontario

We examined the tourist, educational and technical program in connection with the restoration of an underground mine in the Cobalt area (Nipissing 96) as a tourist attraction. This involved determining capacities, planning above and below-ground visitor programs, site layout and potential markets for all seasons of the year. We analyzed the financial feasibility of the project.

Mining Museum and Mine Tour Attraction - Alberta

For this financial feasibility study in the Drumheller area we examined the relative merits of a number of mines to determine which would be the most favourable one for development as a tourist attraction. We made our selection in relation to an analysis of market segments. We closely scheduled alternative visitor programs to determine the one that was most financially feasible.

Wild Animal Park - Saskatchewan

A large expansion was proposed for an existing municipal zoo in Moose Jaw. A study was conducted in association with an engineering firm and a zoology expert. We analyzed the market and prepared financial projections.

Attractions Index

At the beginning of 1979, we created the Attractions Index which provides current information on monthly attendance and revenue statistics on a geographic basis (e.g. by province or region) and by sub-sectors (e.g. historical attractions, outdoor attractions, performing arts, visual arts). The Attractions Index develops information to enable each attraction to measure its performance against group trends. This service, provided without charge to the attractions industry, has already become an important new business indicator which is helping the attractions sector of the tourism industry to gain its deserved status.

Civic Centre - Ontario

A review of possible sources of government funding was conducted for a proposed large civic centre.

Counselling Small Businesses - Ontario

Under a provincial program, we have reviewed the operations of more than 100 owner-managed retail, service and tourist related businesses in a number of small cities. The aim has been to improve the management skills of independent businesses to enable them to compete effectively with chain operations.

Waterfront Redevelopment

We analyzed and provided advice on the operational and development alternatives for a major waterfront redevelopment.

Economic Opportunities for Indian Band - Yukon

In many situations, one development will not stand by itself. It needs the support of related facilities. In this project, while the focus was on a marina, we gave consideration to a great variety of other tourist and recreation related activities.

Travel Trade - National

We have advised agencies and incentive travel organizers with respect to market opportunities and their own business operations.

CN Tower - Ontario

Prior to the construction of the tallest free-standing structure in the world, we were consulted regarding operational and public relations considerations.

National Park

We designed and conducted a survey to examine the needs and optimum solution for an in-park transportation system.

Outfitter

We reviewed the financial viability of expanding the operations of a successful hunting and fishing outfitter.

Reporting System for Major National Chain of Fast Food Outlets

A computer-based system was designed and tested to provide a fast, accurate information flow and reliable financial and inventory controls.

Hotels, Dining Rooms, Restaurants, Lounges, Bars - National

We have set up inventory and cash controls along with accounting and reporting systems for chains and independent operations.

Food Study for a University - Ontario

The University of Guelph required an assessment of its food operations. Menus, pricing, students' meal contract arrangements, outside caterers, and food outlets were considered in this study.

Operating and Accounting Manuals - Ontario

These handbooks were developed for a college operating a number of restaurant outlets.

College Courses - Ontario

We designed a community college financial management course and instructor's guide for persons already engaged in Ontario's hotel/tourism industry.

Theme Attractions - New Brunswick; Yukon

A great number of visitors seek learning opportunities. They particularly are drawn to attractions which involve them in dynamic, participatory ways, while at the same time interpreting history, culture, science and technology. In these projects, we study potential market demand and make a detailed examination of opportunities for exciting and interesting visitor programs and events. These assignments extend from concept to feasibility.

Valuations

Hotels, attractions and other businesses have been evaluated to determine their fair market value for purposes of buying, selling, merger, expropriation, income tax and estate planning.

ROSCOE, STIENSTRA, HAVERTY AND RANKIN



NAME: Stanley M. Roscoe, B. Arch., M.R.A.I.C.

QUALIFICATIONS: Graduated from the University of Manitoba with honours in 1949 with a Bachelor of Architecture degree

EXPERIENCE: Licensed in 1950 and worked for Northwood and Chivers, Architects in Winnipeg
Kyles & Kyles, Architects, Hamilton
City Architect for Corporation of the City of Hamilton for 9 years with 50 projects designed and built under my direction -- the City Hall, fire stations, hospital additions, home for aged, various civic buildings

Private practice from 1960 includes the following:

- commercial buildings (factories, office buildings, shops, stores, Dofasco anti-pollution buildings
- housing - multi-storied apartment buildings, private houses, townhouses, garden apartments
- public buildings for Parks Board, Golf Clubs, Municipal, Provincial and Federal governments
- educational buildings - schools of all varieties
- hospital construction
- land use plans for
 - a) 130 acres in downtown Brampton for Calvertdale
 - b) 125 acres on Maple Avenue, Burlington
 - c) 150 acres land development Blue Mountain Ski Resorts
 - d) 187 townhouses in Hamilton on Garth Street
- designed and built 2 apartment buildings for Ontario Housing Corporation in Petrolia and Markdale
- designed and planned City of Malabar, Trinidad including 2500 housing units, including single family housing as well as townhouses and apartments

RESIDENCE: 224 Robina Road, Ancaster

NAME: Albert R. Stienstra, P. Eng., B.A.Sc., M.E.I.C.

QUALIFICATIONS: Graduated in Civil Engineering from University of Toronto with honours in 1953. Won Thesis award from Canadian Construction Association

EXPERIENCE: James A. Vance, General Contractor - project engineer for general contracting firm for 2 years

Firestone Tire & Rubber Co. Ltd. 1956 - 1962 - located properties, designed and built Firestone facilities across Canada

Consulting Structural firm 1963 - 1967 - structural design and supervision for numerous building projects in Hamilton and surrounding area. Participated with D. N. McIntosh of McIntosh & Moeller in structural design of Mohawk College.

Roscoe, MacIver & Stienstra, Architects & Engineer - 1967 - 1971

Roscoe & Stienstra - 1971 - 1975

Roscoe, Stienstra, Haverty & Rankin, Architects & Engineer - 1975 to Present

Structural design for high rise commercial buildings such as IBM building, Fidelity building

Structural design for industrial complexes such as Tridon Limited and Andres Wines Limited

Housing - high-rise concrete structures such as Queen '75 and Robert Street Village

Other recent projects include the structural design for the Sanford Avenue Recreation Centre and the Aldershot Community Pool

Acted as general contractor and Vice President of Strymac Developments Limited which built two senior citizen apartment buildings for Ontario Housing Corporation

Has been the structural engineer for Roscoe, Stienstra, Haverty & Rankin on all of the projects this firm has produced

RESIDENCE: 5039 Lakeshore Road, Burlington

NAME: Lorne E. Haverty, B. Arch., M.R.A.I.C.

QUALIFICATIONS: Graduated with honours from the University of Toronto in 1969 with a Bachelor of Architecture degree

EXPERIENCE: Roscoe & MacIver, Architects 1965 - 1966
Worked during vacations from university - design work and drafting

Roscoe, MacIver & Stienstra, Architects & Engineer
1967 - 1969 - worked during vacations from university - design work and drafting

1969 - 1971 - after graduation worked full time as design architect on various projects

Roscoe & Stienstra, Architect & Engineer 1971 - 1973
- acting in capacity of project architect for the planning of 130 acres of land in Brampton and 130 acres in Burlington both for housing and shipping

Roscoe, Stienstra, Haverty & Rankin, Architects & Engineer 1973 to present

housing - designed approximately 1500 apartment units and townhouses in downtown Hamilton and vicinity in the period from 1970 to 1980

planned and designed 130 acres in Brampton

designed and planned Regents Gardens apartments and Foreshore apartments in Port of Spain, Trinidad as well as buildings in St. John's Newfoundland and Kingston, Ontario

commercial - involved in the design of the IBM building and the Fidelity Tower as well as being the architect for the Ancaster Mill

public buildings include the Hamilton-Wentworth Children's Aid Society building and the Sanford Avenue Recreation Centre

other projects include Queen '75, Robert Street Village, Shaklee Industries, Burlington and Public Health Laboratories in Hamilton, Orillia and Woodstock

RESIDENCE: 39 Homewood Avenue, Hamilton

NAME: James Bruce Rankin, B. Arch., M.R.A.I.C.

QUALIFICATIONS: Architectural Technologist - graduated in 1963 from Ryerson Polytechnical Institute
Bachelor of Architecture - graduated in 1970 from University of Toronto

EXPERIENCE: Pigott Construction Company 1960 - 1961
Hospital and highway work, surveying work

Roscoe & MacIver, Architects 1963 - 1966
Draftsman, Job Captain, Renderer

Roscoe, MacIver & Stienstra, Architects & Engineer
1967 - 1970
Designer, Clerk of Works

Roscoe & Stienstra, Architect & Engineer
1971 - 1973
Associate Architect
Personally involved with all projects emanating from this firm over the past 10 years

Roscoe, Stienstra, Haverty & Rankin, Architects & Engineer 1973 to present

commercial buildings include Tridon Limited, Andres Wines, Alexandra Square office building

housing includes planning and design of 100 acres in Windsor, Ontario as well as St. John Place in Hamilton

public buildings include the Unemployment Insurance Commission Building, Hamilton, Regional Municipality of Hamilton-Wentworth offices and Canada Employment Centre

other projects include the Aldershot Community Pool, Burlington Family Y.M.C.A., Sports & Fitness Centre, St. John's Place, City of Burlington Sewage Treatment Plant, Burlington Pollution Control Plant, A & W Drive-in Restaurants, Mother's Restaurants, Kelsey's in Oakville, Burlington & Stoney Creek

RESIDENCE: 688 North Shore Blvd., Burlington

- SCHOOLS AND COLLEGES
- Norfolk Board of Education
 - Valley Heights Public School
 - North Walsingham Public School
 - Burlington Board of Education
 - John T. Tuck Public School
 - Champlain Public School
 - M. M. Robinson High School
 - Frontenac Public School
 - Hamilton Board of Education
 - Sherwood Secondary School
 - Ridgemount Public School
 - Agnes McPhail Junior Vocational School
 - Fairview School
 - Clarksdale Public School Addition
 - Cardinal Heights Public School and Addition
 - Paris Board of Education
 - North Ward Public School
 - Halton Board of Education
 - General Wolfe High School, Oakville
 - Peel Board of Education
 - Cawthra School
 - Sheridan College
- GOLF CLUBS
- Burlington Golf and Country Club
 - Binbrook Golf Club
 - Islington Golf and Country Club
 - Glendale Golf and Country Club
- POST OFFICES
- Government of Canada
 - Postal Station "D", Hamilton
 - Burlington Post Office Addition
- PUBLIC HEALTH LABORATORIES
- Ontario Government
 - Hamilton
 - Orillia
 - Woodstock
- CHURCHES
- Durham Presbyterian Church, Durham
 - Marshall Memorial Church, Ancaster
 - Pineland Presbyterian Church, Burlington
 - Bethel Gospel Tabernacle, Hamilton
 - Solel Synagogue, Mississauga
- PUBLIC BUILDINGS
- Ancaster Town Hall
 - Bowmanville Police and Fire Station
 - Durham Hospital
 - McMaster University Clinic, Phase I and II
 - Unemployment Insurance Commission Building, Hamilton
 - Regional Municipality of Hamilton-Wentworth Offices
 - C.N.I.B., Hamilton
 - Amity Rehabilitation Centre, Hamilton
 - Children's Aid Society of Hamilton-Wentworth
 - Red Hill Day Care Centre, Hamilton
 - Masonic Lodge, Hamilton
 - Macassa Lodge Addition & Alterations, Hamilton
 - Canada Employment Centre Alterations, Hamilton

FACTORY BUILDINGS
AND OFFICES

- Tridon Limited, Burlington
- Tridon Plant, Oakville
- Dofasco Pollution Control Plant, Hamilton
- Firestore Warehouses, Hamilton
- Andres Wines Limited, Winona
- Vallance Brown, Hamilton & St. Catharines
- Laidlaw Transport, Hamilton
- Dufferin Construction, Hamilton
- Diamond Canapower Office and Plant, Burlington
- Comstock International Limited, Burlington
- Arcan Eastern, Hamilton
- Allen Industries, Hamilton
- Bonar & Bemis Ltd., Burlington
- Philips Planning & Engineering Ltd., Burlington
- Mainway Mini Storage Building, Burlington
- Plains Road Warehousing, Burlington
- Jervis B. Webb Office & Plant Addition, Hamilton
- Canadian Engineering Office Addition, Hamilton
- Jervis B. Webb Warehouse, Hamilton
- Shaklee Industries Limited, Burlington

BANKING

- Hamilton Trust & Savings Corporation - Head Office
and Branches
- Hamilton-Wentworth Credit Union - Head Office and Branch
- Mercantile Bank, Hamilton
- Stelco Employees (Primary Works) Credit Union, Hamilton
- The Permanent, Branches
- Fidelity Equitable Trust, Hamilton

COMMERCIAL

- Delta Volkswagen, Hamilton
- J. Holland Motors, Burlington
- Downtown Motors, Hamilton
- Royal Motors, Orangeville
- Burlington Toyota
- Flamboro Downs Raceway
- Flamboro Downs Grandstand Addition
- Robinson's Downtown Store Addition & Alterations, Hamilton
- Eaton's Store Addition, Hamilton

RESTAURANTS

- Golden Steer Steak House, Hamilton
- Ancaster Mill
- A & W Drive-In Restaurants, Hamilton, Burlington, Toronto
- Rendezvous Restaurant, Hamilton
- Mother's Restaurants, Renovations
- Jockey Club Tavern, Hamilton
- Smitty's Pancake House, Hamilton
- Kelsey's, Oakville, Burlington, Stoney Creek

RECREATIONAL
FACILITIES

- Hoover Park Y.M.C.A.
- Burlington Family Y.M.C.A.
- Addition to Mountain Y.M.C.A.
- Wentworth Sports Club
- Binbrook Community Hall & Grandstand
- Sports & Fitness Centre, St. John Place, Hamilton
- Queen '75 Condominiums, Athletic Facilities, Hamilton
- Aldershot Community Pool
- Sanford Avenue Recreation Centre, Hamilton

MISCELLANEOUS

- City of Burlington, Sewage Treatment Plant
- Burlington Pollution Control Plant
- City of Hamilton Water Treatment Plant
- City of Hamilton Sewage Treatment Plant

DEVELOPERS

- | | |
|-----------------------------------|---|
| Derwent | - 100 acre townhouse, apartment project in Windsor |
| Calvertdale | - 130 acres of apartments, townhouses, shopping and recreation - Ronark Developments |
| Vin-Ton Contracting | - 80 townhouses, Gilkson Gardens, Hamilton |
| Cutaia Developments | - 80,000 sq. ft. Alexandra Square office building
- 160,000 sq. ft. IBM building
- 215 apartments Blinkbonnie
- Jackson Square Development Study |
| Bitar Developments | - 270 apartment units - Hess Street, Hamilton |
| Zucker Developments | - 1078 apartment units - 3 sites under rezoning and design |
| St. John Place | - CR-2 developments, 20,000 sq. ft. commercial, 270 apartment units, Hamilton |
| Fidelity-Equitable Trust | - 15 storey office building, King & James Streets, Hamilton |
| Dover Construction | - 92 Unit Apartment Building, St. John's, Nfld. |
| Waterdown Senior Citizens | - 60 senior citizen units |
| Wellington Place | - 220 apartment units, Hamilton |
| Robert St. Village Phase I and II | - 450 apartment units, Hamilton |
| Tedlar Developments | - 190 condominium apartment tower, Queen Street North, Hamilton |
| Kosar Properties Limited | - 40 townhouses |
| Strymac Developments | - our own company formed to learn first hand the business of land purchase, pricing, bidding and building projects.
We have bid on approximately 20 OHC proposal calls.
We were awarded and have completed:
24 senior citizens units - Petrolia
12 senior citizens units - Markdale
25 senior citizens units - Durham
80 OHC units, Gilkson Gardens, Hamilton |
| Capital Structures | 90 Unit apartment and commercial space, Yonge St., Richmond Hill |
- S. M. Roscoe personally assisted the Planning Department in preparing the CR1, CR2 and CR3 bylaw and we have completed a design study of Block 100 in Hamilton.

HANSCOMB ROY ASSOCIATES



BUILDING CLASSIFICATION CODE - CLASSIFIED LISTING

5. REFRESHMENT, ENTERTAINMENT & RECREATION BUILDINGS

56 SPORTS BUILDINGS

564 Stadia, including grandstands, for racing, baseball, football, etc.

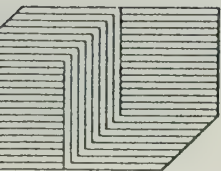
P: Nepean Sports Complex, Ottawa
D: 1971
O: The Corporation of the Township of Nepean
V: \$5,000,000
A: Hans L. Stutz
S: Cost planning and control

P: Athletic Facility, Peterborough
D: 1974
O: Trent University
V: \$2,800,000
A: Prack Partners
S: Cost planning and control

P: Stadium/Sports Facilities, East York Collegiate
D: 1974
O: East York Board of Education
V: \$2,100,000
A: Prack Partners
S: Preliminary estimates

P: Athletic Complex, Toronto
D: 1974
O: University of Toronto
V: \$10,500,000
A: Prack Partners
S: Cost planning and control

P: Commonwealth Games Stadium, Edmonton
D: 1975
O: City of Edmonton
V: \$15,000,000
A: Ragen, Bell, McManus & Associates
S: Cost planning and control



P: Taylor Field, Regina
D: 1976
O: City of Regina
V: Unknown
E: Reid, Crowther & Partners Ltd.
S: Estimates

P: Track & Field Training Facility, Toronto
D: 1977
O: York University
V: \$2,500,000
A: Moffat, Moffat & Kinoshita
S: Cost planning and control

P: Icerink, Recreational & Cultural Centre, Omaha
D: Current
O: Leisuretime Centres Inc.
V: \$79,000,000
A: To be determined
S: Project Management & Control Services

Born: Edinburgh, U.K., 1934. Canadian Citizen - 1963

Current Position: Partner, Hanscomb Roy Associates, Canada
Director, Hanscomb, Roy Associates Limited, Canada.

Professional Qualifications and Memberships: Graduate of Heriot Watt College, Edinburgh, in Quantity Surveying, 1957.
Fellow, The Royal Institution of Chartered Surveyors
Member, Canadian Institute of Quantity Surveyors.

Professional Experience: Mr. Donnell received his professional training and early professional experience with a firm of general practice chartered surveyors in Edinburgh before emigrating to Canada in 1958.

Prior to joining Hanscomb Roy Associates in 1969, held senior positions with prominent general contracting firms in the Niagara Peninsula and Hamilton and was responsible for estimating, contract administration and construction management of a wide range of multi-million dollar projects.

Since joining Hanscomb Roy Associates, was project co-ordinator from 1970 to 1973 for Hamilton's multi-purpose concert hall/theatre, supervising scheduling of design and construction, tendering procedures and overall financial management through to project hand-over.

Mr. Donnell collaborated on capital construction and life cost studies undertaken for the Council of Ontario Universities in 1972 and 1973 and was partner-in-charge of a life cost study of design concepts for a major Ontario hospital facility in 1974.

In 1974-75 was partner-in-charge of a hospital research assignment and its subsequent evolution into a Canadian demonstration project to be built under "Best Buy" philosophy. Was responsible for setting up the project management, time and cost control systems.

Was partner-in-charge of HRA's team for cost control services rendered in 1974 and 1975 on Hamilton's new Art Gallery, now completed, and in 1977/78 for London's new Art Gallery which was opened in May, 1980. Was responsible for HRA's services on Hamilton's St. Peter's Centre, completed in 1975.

Professional
Experience
continued:

In 1976/77 was partner-in-charge of master scheduling and program budgeting services for a new multi-purpose concert hall/theatre project in Thunder Bay, Ontario.

Was responsible for HRA's program budgeting services, completed in March 1978, for the Stratford Shakespearean Festival Foundation of Canada's planned Stage One facility at Stratford, Ontario.

From July 1978 to October 1979 was partner-in-charge of project control services (project management procedures, scheduling, customs management and cost consulting) for a \$115 Million Theme Park presently under construction, in the town of Vaughan, Ontario for the Taft Broadcasting Corporation of Cincinnati, Ohio.

Currently is partner-in-charge of consulting services for the following projects which are now in the construction phase: Queen Elizabeth Hospital in Charlottetown, P.E.I. a multi-purpose concert hall/theatre project in Kitchener, Ontario; and a new library in Peterborough, Ontario.

Mr. Donnell became an associate of the practice in 1970, a senior associate in 1973 and a partner in 1974. He is responsible for the administration and operations of the Hamilton and Toronto offices.

Publications
and
papers:

Project Management - Comparison with Traditional Systems - American Society of Heating, Refrigerating and Air Conditioning Engineers. Hamilton, February 1974. Panel.

Improving Estimating and Cost Control Skills for Architects - OAA Continuing Education Seminars 1973-74. Member of Hanscomb Roy Associates' team.

Research article on a 'best buy' approach to hospital construction - HRA newsletter, 1975.

"Controlling Your Clients Construction Dollars" - Growth Resources Inc., one day seminars - 1979. In collaboration with B. Bowen, Partner.

Born: Zevenihizen, The Netherlands, 1945

Current Position: Senior Quantity Surveyor, Hanscomb Roy Associates, Hamilton. Architectural/Structural Division

Professional Qualifications: Graduate of Ryerson Polytechnical Institute (Architectural Technology) Toronto, 1966.

Professional Experience: Prior to joining Hanscomb Roy Associates in 1970, held positions of estimator, expeditor and project co-ordinator with several Toronto firms of general contractors.

Joined Hanscomb Roy Associates in Toronto and was transferred to the Ottawa office where he was responsible for cost planning and control services for several projects on the Carleton University campus, as well as assisting in conceptual estimating studies for a major health sciences project in Kingston.

Located in the Hamilton office since 1974, he is responsible for cost consulting services on a wide range of projects for health care, university, industrial, civic and arts related clients, examples of which are:

- : St. Peter's Geriatric Hospital, Hamilton
- : Queen Elizabeth Hospital, Charlottetown, P.E.I.
- : Art Gallery of Hamilton
- : Hamilton Trade & Convention Centre
- : Mohawk College & Library, Hamilton
- : Engineering Library, McMaster University
- : Library, Niagara Falls
- : Senior Citizens' Residences, Burlington
- : McDonald-Stewart Arts Centre, Guelph
- : RCA Plant, Midland
- : Athletic Building, University of Toronto
- : Athletic Building, Trent University, Peterborough
- : Residential Commercial Developments, Toronto
- : Theatre/Arts Centre, Kitchener
- : Theatre/Arts Centre, Thunder Bay

Born: England, 1943

Current Position: Associate, Hanscomb Roy Associates, Canada
Senior Cost Consultant - Mechanical Division

Professional qualifications and memberships: H.N.C., Mechanical Engineering
Member, Institute of Heating and Ventilating Engineers
Member, Institute of Refrigeration

Professional experience: Upon completion of his formal education in 1959, Mr. Mason was an articled pupil in the Architect's Department of Durham County Council Heating Division for a period of 6 years.

In 1965, joined the firm of Andrews Wetherfoil Ltd., District Heating Division, where he was responsible for the design/installation of district heating contracts throughout the U.K.

In 1972, he became the General Manager of the mechanical and air conditioning department for Drake & Scull (Nigeria) Ltd., Nigeria. Services carried out included steam, condensate, water services, sewage treatment, large central air conditioning both air cooled and water cooled, and direct expansion.

Mr. Mason joined HRA early in 1976, became an Associate of the practice in 1979 and is currently responsible for all mechanical cost control, budgeting and life cycle costing on a wide range of projects on which HRA is providing services in Ontario, Manitoba, Saskatchewan and Alberta. Some recent projects include -

Seven Oaks General Hospital, Winnipeg

Malton International Airport, Ontario

London Regional Art Gallery

Regina & Pasqua Hospitals, Saskatchewan

Federal Government Interstitial Space Study

National Gallery, Ottawa

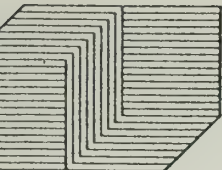
Queen Elizabeth Hospital, P.E.I.

Concert/Theatre, Kitchener, Ontario

Stage One Theatre, Stratford, Ontario

Theatre Complex, York University.

Athletic Complex, University of Toronto



Born: Leamington Spa, U.K. 1942

Current Position: Senior Consultant,
Electrical Division

Professional Qualifications and Memberships: Graduate of Danforth Technical School in Architecture and Building Construction Course

Professional Experience: In 1959 joined the consulting firm of H.H. Angus & Associates Ltd. as electrical draughtsman and gained experience in the design development of electrical aspects of major commercial, institutional and health care projects in the Toronto area.

Prior to joining Hanscomb Roy Associates in 1974, Mr. Wright was an electrical designer in the consulting firm of J. Chisvin & Associates Ltd., holding the position of Job Captain for several significant projects.

Mr. Wright is currently responsible for all electrical cost control and budgeting on a wide range of projects on which Hanscomb Roy Associates is providing services in Ontario, Manitoba, Saskatchewan and Alberta.

Seven Oaks General Hospital, Winnipeg
Malton International Airport, Ontario
London Regional Art Gallery
Regina & Pasqua Hospitals, Saskatchewan
Federal Government Interstitial Space Study
National Gallery, Ottawa
Queen Elizabeth Hospital, P.E.I.
Concert/Theatre, Kitchener, Ontario
Stage One Theatre, Stratford, Ontario
Theatre Complex, York University.
Athletic Complex, University of Toronto
Athletic Complex, Trent University
Commonwealth Games Stadium, Edmonton, Alberta

Background

Hanscomb Roy Associates was established in 1957 when small offices were established in Toronto and Montreal. In the early days, the services provided to building owners, architects and contractors included the preparation of construction cost estimates and quantity take-offs. During the 1960's, as concern for closer economic controls over building projects spread, the range of the firm's operations expanded with the opening of additional offices in Ontario and Quebec. During the 1970's, further expansion took place into Western Canada, accompanied by a diversification of the range of services provided, into such areas as scheduling and time control, project management, economic analysis, research and development activities, energy and operations management.

HRA operates as a Partnership under the control and ownership of a group of Canadian engineers, quantity surveyors and architects. Today, HRA is a leading organisation of project control consultants, unique in offering an integrated and balanced range of management and control services. Further diversification and expansion is being planned and developed to meet the new challenges of the future.

General Approach

HRA is an outgoing and progressive firm with a strong innovative policy of continuing growth and diversification into complementary fields of service which offer new and challenging opportunities for professional development. Their stated purpose is to serve the construction industry and building owners by increasing productivity and efficiency in the design and construction processes with the main objectives being to deliver building projects on budget, within the shortest possible period of time and at the best value for money. By helping building owners and design consultants to manage and control all aspects of cost, time, quality and performance in an unbiased and independent professional manner, HRA is recognized as one of the leaders in the coordinated management and control of building projects. The execution of HRA's purpose rests upon their ability to bring together in a team the professional and practical skills of project management, construction economics, quantity surveying and construction management. This approach is supported by a continuing research and development effort into procedural changes and new developments in the design, documentation, tendering and construction processes.

Benefits of Services

- Independent objective advice
- Tenders on budget
- Completion on schedule
- Minimisation of disputes
- Reduction of unexpected extras
- Value for money
- Reduced operating, maintenance and energy costs
- Maximum return on investment
- Innovative solutions to industry problems

People

Ian Aitchison, <i>Partner</i>	Ontario Land Economist, Toronto
John Arsenault, <i>Partner</i>	Electrical Quantity Surveyor, Edmonton & Montreal
Chris Baker, <i>Manager</i>	Quantity Surveyor, Calgary
Jacques Bissonnette, <i>Director, Project Management</i>	Architect, Montreal
Brian Bowen, <i>Partner</i>	Construction Economist, Montreal
Robert Charette, <i>Energy Division Coordinator</i>	Engineer, Montreal
Guy de Brouwer, <i>Manager</i>	Architect, Hull/Ottawa
John Dilworth, <i>Associate</i>	Construction Economist, Vancouver
Stewart Donnell, <i>Partner</i>	Quantity Surveyor, Hamilton
Geoffrey Hanscomb, <i>Partner</i>	Quantity Surveyor, London
Ed Hara, <i>Regional Manager</i>	Network Scheduler, Toronto
Marc Lauzon, <i>Associate</i>	Quantity Surveyor, Montreal
Peter Mason, <i>Regional Manager</i>	Mechanical Cost Engineer, Toronto
Marcel Milette, <i>Regional Manager</i>	Mechanical Quantity Surveyor, Montreal
Robert Myles, <i>Partner</i>	Construction Economist, Toronto
Guy Poulin, <i>Manager</i>	Architect, Quebec City
Laurence Purvis, <i>Manager</i>	Construction Economist, Montreal
Hans Rasmussen, <i>Partner</i>	Construction Manager, Calgary & Edmonton
Jean-Pierre Roy, <i>Partner</i>	Engineer, Montreal
Richard Schofield, <i>Manager</i>	Quantity Surveyor, Regina
Madat Shariff, <i>Manager</i>	Quantity Surveyor, Edmonton
John Spender, <i>Manager</i>	Quantity Surveyor, Winnipeg
John Walker, <i>Partner</i>	Quantity Surveyor, Vancouver
Cathy Westbrook, <i>Associate</i>	Accountant, Toronto
Al Wright, <i>Regional Manager</i>	Electrical Cost Engineer, Toronto

Personnel of Hanscomb Roy Associates hold memberships in the following associations:

American Arbitration Association
 American Association of Cost Engineers
 American Society of Heating, Refrigerating
 & Air Conditioning Engineers
 American Society of Plumbing Engineers
 Arbitrators' Institute of Canada Inc.
 Association of Ontario Land Economists
 Building Owners & Managers Association
 Canadian Institute of Quantity Surveyors
 Canadian Society for Civil Engineering
 Certified General Accountants Association
 Council of Education Facility Planners

Institute of Arbitrators
 Institute of Building
 Order of Architects of Quebec
 Ordre des Ingénieurs du Québec
 Ontario Institute of Quantity Surveyors
 Quantity Surveyors' Society of British Columbia
 Project Management Institute
 Royal Architectural Institute of Canada
 Royal Institution of Chartered Surveyors
 Construction Specifications Canada
 The Association of Professional Engineers
 of the Province of Ontario

Services

Project Management

- Pre-Contract Coordination
- Design Coordination
- Project Documentation
 - Contracts
 - Specifications
- Consultant Coordination
- Construction Management
 - Construction Cost Management
 - Construction Time Management
 - Construction Quality Management
- Construction Organisation
 - Construction Resource Utilisation
 - Site Organisation
- Construction Coordination
 - Component Coordination
 - Labour Trade Coordination

Network Analysis

- Construction Scheduling
- Design and Documentation Scheduling
- Schedule Analysis

Feasibility Studies

- Appraisal
- Budgets
- Design Studies
- Economics
- Finance
- Marketing

Energy Management

- Energy, Operations and Maintenance Budgets
- Energy and Operations Audits
- Optimisation of Energy Systems
- Operations Management

Quantity Surveying

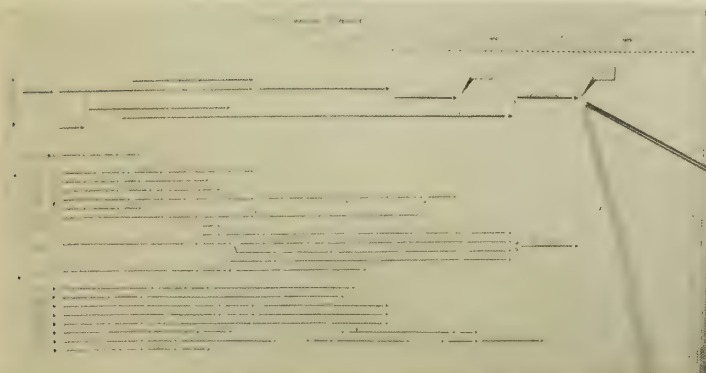
- Construction Economics
 - Cost Analysis
 - Cost Benefit Analysis
 - Elemental Cost Analysis
 - Cost Engineering
 - Value Engineering
 - Life-cycle Costing
 - Cost Control
 - Cost Planning
 - Cost Reports
 - Cost Estimates
 - Replacement Cost Estimates
 - Preliminary Cost Estimates
 - Bid Estimates
 - Operating Cost Estimates
- Quantity Surveys
 - Quantity Take-offs
 - Schedules of Materials
 - Schedules of Quantities

Arbitration

- Claim Settlement
- Expert Witness

Research

- Construction Price Indexes
- Construction Industry Information Systems
 - Cost Data Information Systems
 - Product Literature Information Systems
 - Technical Literature Information Systems
- Cost Control Automation
- Cost Research
- Design/Construction Decision Procedures

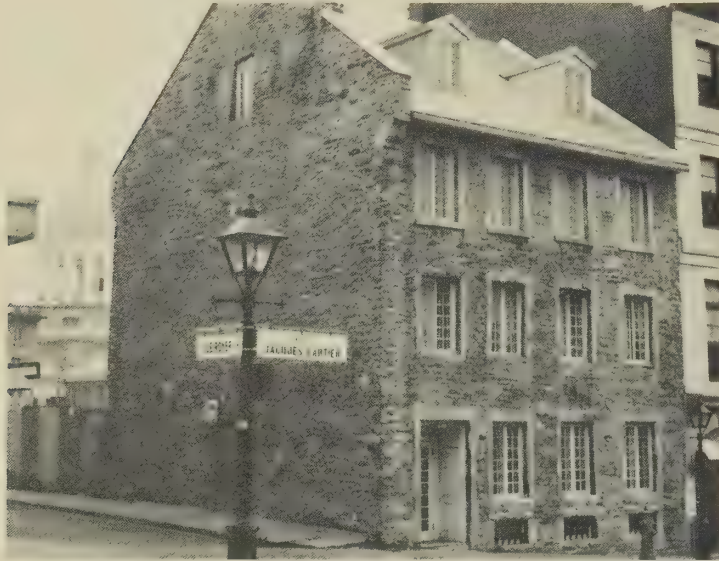


CFB ST - JEAN PROJECT
BUDGET STATUS REPORT

REPORT No. 16
EFFECTIVE DATE 28 FEB 77
SHEET No. 32/33

CONTRACT PACKAGES	EXPENDITURE TO DATE	CONTRACTED	ESTIMATE TO COMPLETE	FINAL ESTIMATED COST	APPROVED BUDGET	EXERCISED RESERVE	EXERCISED BUDGET	VARIANCE (+/-)
204. Asbestos siding & roof deck - CHIP	0	37700	3760	81500	35379	6871	42350	-750
205. Rough carpentry, roofing, waterproofing membrane - CHIP	12246	12340	660	13000	15539	2938	18477	-5477
206. Masonry, finish hardware, metal doors & windows - CHIP	18993	19366	1838	20800	9783	1808	11151	9649
207. Unused	-	-	-	-	-	-	-	-
208. Painting - CHIP	0	0	15196	15196	12991	2205	12196	0
209. Unused	-	-	-	-	-	-	-	-
210. Plumbing & heating - CHIP	381779	811798	12082	823880	702000	145366	867366	-33566
211. Ventilation - CHIP	0	22400	3100	23500	17000	2946	19946	3554
212. Insulation & pipe covering - CHIP	0	43700	2305	46000	39900	8359	48259	-2259
213. Unused	-	-	-	-	-	-	-	-
214. Electrical works - CHIP	10970	163900	7100	171000	118370	19197	137567	33433
215. Tunnel	247500	252500	12000	265000	229000	29276	258276	6724
216. Unused	-	-	-	-	-	-	-	-
217. Unused	-	-	-	-	-	-	-	-
218. Unused	-	-	-	-	-	-	-	-

Offices



Calgary

415 — 14th Street N.W.
Calgary, Alberta T2N 2A1
(403) 283-3391

Edmonton

McLeod Building
10136 — 100th Street
Edmonton, Alberta T5J 0N8
(403) 424-2107

Hamilton

32 James Street S.
Hamilton, Ontario L8P 2Y1
(416) 525-5926

Montreal

433 Place Jacques Cartier
Montreal, Quebec H2Y 3B1
(514) 871-0020

Ottawa

504/130 Albert Street
Ottawa, Ontario K1P 5G4
(613) 232-2663

Quebec

44 Ave. Ste-Genevieve
Quebec, Quebec G1R 4B2
(418) 692-2601

Regina

2526 A 11th Avenue
Regina, Saskatchewan S4P 0K5
(306) 352-1639

Toronto

2301/Two Bloor Street W.
Toronto, Ontario M4W 3E2
(416) 961-8601

Vancouver

603/1200 West Pender Street
Vancouver, B.C. V6E 2S9
(604) 685-1241

Winnipeg

200B/338 Broadway Avenue
Winnipeg, Manitoba R3C 0T2
(204) 943-4516



Top: Montreal Office
Middle: Calgary Office
Bottom: Toronto Office

Representative Clients

Federal Government of

Canada

Provincial Government of

Alberta
British Columbia
Manitoba
New Brunswick
Ontario
Prince Edward Island
Quebec
Saskatchewan

Municipality of

Edmonton
Fort McMurray
Hamilton
Hull
Montreal
Prince George
Toronto
Vancouver
Winnipeg

Educational

Calgary Board of Education
McGill University
Simon Fraser University
University of Alberta
Université de Montréal
University of Ottawa
University of Saskatchewan
University of Toronto

Medical

Hôpital du Saint Sacrement, Québec
Hôpital Rimouski, Québec
Manitoba Health Services Commission
Prince George Regional Hospital, B.C.
Queen Street Mental Health Centre, Ontario
Toronto Hospital, Weston
University Hospital, Saskatoon
Wrinch Memorial Hospital, Hazelton, B.C.
Okanagan Similkameen Regional District, B.C.
Capital Region Hospital District, B.C.

Commercial/Industrial/Residential

Aronovitch & Leipsic Ltd.
Bank of Nova Scotia
Bell Canada
Cadillac Fairview Corporation Ltd.
Campeau Corporation
Canada Packers Ltd.
Canadian Pacific Ltd.
Central Mortgage & Housing Corp.
Citicorp Ltd.
Four Seasons Hotels Ltd.
Great West Life Assurance Company
Hydro Quebec
Insurance Corporation of B.C.
A. E. LePage Ltd.
Manitoba Housing & Renewal Corp.
Marathon Realty Co. Ltd.
Mercantile Bank of Canada
Metropolitan Life Insurance Co.
Ontario Hydro
Pacific Centre Ltd.
Underwriters' Adjustment Bureau Ltd.
Woods Gordon & Co.
Y & R Properties Ltd.

Architects/Planners/Engineers

Bittorf, Holland, Christianson Ltd.
Bond & Mogridge
W. H. Crandall & Associates
David, Boulva, Dimakopoulos
Trevor P. Garwood-Jones
Graham, Bacon, Welter
Larose, Laliberte, Petrucci
McCarter Nairne & Partners
MMP/Winnipeg
Moffat, Moffat & Kinoshita
John C. Parkin
Number Ten Architectural Group
Montreal Engineering Ltd.
Project Planning Associates Ltd.
Raymond Moriyama
Shore Tilbe Henschel Irwin
Smith Carter Partners
The Gardiner Thornton Partnership
Thompson, Berwick, Pratt & Partners
The Webb Zerafa Menkes Housden Partnership
Zeidler Partnership

Projects



Alberta Housing & Public Works — providing cost planning, cost control, estimating and research services on a wide range of projects.

Arctic and North West Territories experience — instrumental in developing systems designed to increase the accuracy of estimating and controlling costs in these areas, by extensive analysis of the problems associated with logistics and risk encountered in remote regions.

Canada-U.S. Manufacturing Facility Cost Study — comparison and analysis of building costs of manufacturing facilities at six locations in Canada and the U.S. The study establishes the magnitude of price differentials between each location and analyzes the reasons for these.

Carleton University, Ottawa — assignment of fulltime quantity surveyor to University staff with responsibilities for overall budget and cost control, cash flow reconciliation to capital entitlement and provision of individual project cost control services.

College of New Caledonia, Prince George, B.C. — pre-tender cost control services and cost evaluation studies. A program of \$10.2 million construction value comprises a number of new buildings and facilities, with renovation of existing buildings, all phased and tendered separately over a 2-3 year period.

Cost-Benefit Studies, Building Management Systems — prepared economic evaluation of computerized building management systems proposed for Seven Oaks Hospital, Winnipeg, and the General and Pasqua Hospitals in Regina. The studies led to simplification of the systems, lower initial and long-term cost investment.

Cost Control & Estimating System for Steinberg's Ltd. — with emphasis on procedures for recycling historical data of completed projects to assist in the preparation of budgets and conceptual estimates.

Department of Public Works, Government of Manitoba — to act as life cycle cost consultants on a provincial office building project in Dauphin, Manitoba.

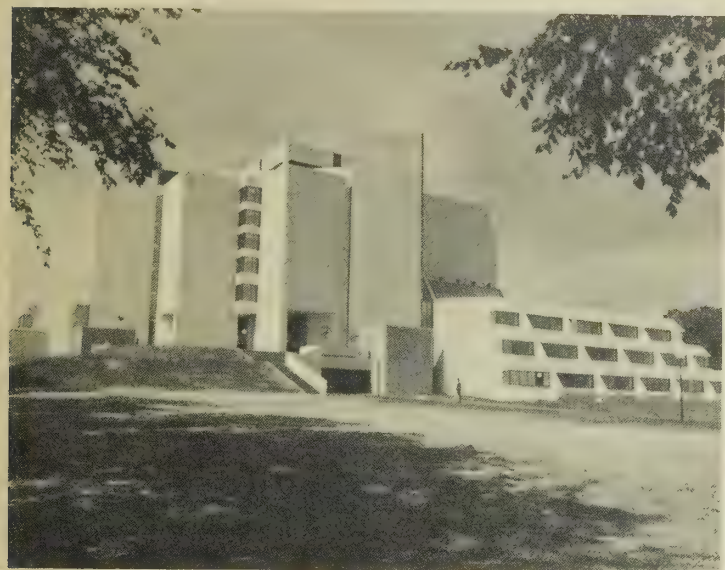
Economic Analyses for John Abbott CEGEP, Montreal — study comprised economic analysis between two options; one to remain in existing facilities at the client's present Macdonald campus, the other to construct a new campus at another location. The first option was selected and project management of the implementation phase is now under way.

Financial control services — provision of cash disbursement control services to companies providing venture capital for real-estate development projects.



Project: Olympic Village, Montreal
Client: COJO '76
Architect: Roger D'Astous & Luc Durand

Project: Gaslight Square, Vancouver
Client: Marathon Realty Co. Ltd.
Architect: Henriquez & Todd



Malton International Airport Expansion Program — member of Ministry of Transport Project Management Team, responsible for the planning, scheduling and monitoring of all design and construction activities on site.

Metropolitan Toronto Zoological Park — pre- and post-contract cost planning and cost control services on this \$20 million project which comprised about 45 separate contract packages for buildings, services, site works, etc.

New General Hospital, Charlottetown, P.E.I. — pre-construction management involving program estimating, cost control and scheduling including preparation of project procedures manual and co-ordination of all design and construction activities.

Olympic Village, Montreal — responsible for ensuring that the requirements of all participants, agencies or committees were coordinated and met. Services performed during completion of design and construction phases included cost, time, quality and performance control, approval of construction techniques, letting of contracts and approval of all expenditures.

Ontario Hydro Head Office Building, Toronto — development of a budget control estimate which formed the basis for monitoring financial progress, negotiations with the developer and provided a framework within which progress payments and changes were evaluated.

Regina Hospitals Regeneration Program — appointed at an early stage to participate in preliminary studies on project implementation. Currently providing cost control services on this long-term project.

Solar Energy Data Base — development for the National Research Council of standardized reporting formats for the collection of data on solar heating installations throughout Canada. Assistance was also provided in the collection of the data.

Study of Management Systems — analysis of current methods in use for the delivery and management of construction projects for the Department of Regional Economic Expansion.

Technical editors for 'Yardsticks for Costing' (construction unit price manual) — published annually with costs for seven cities in Canada. All cost data input is fully computerised.

University of Quebec at Montreal — pre-contract estimating and provision of full project control services for cost and time control during construction for this \$55 million project.

Vaughan Theme Park, Maple, Ontario, for Kings Productions, Cincinnati — responsible for cost control, time scheduling and management support services during design and construction.

Hamilton Place Cultural Complex — co-ordination of design phase, conceptual estimating, cost planning and cost control, pre-qualification of contractors, obtaining lump sum tenders based on schedules of approximate quantities, scheduling and financial management in this project over a period of four years.

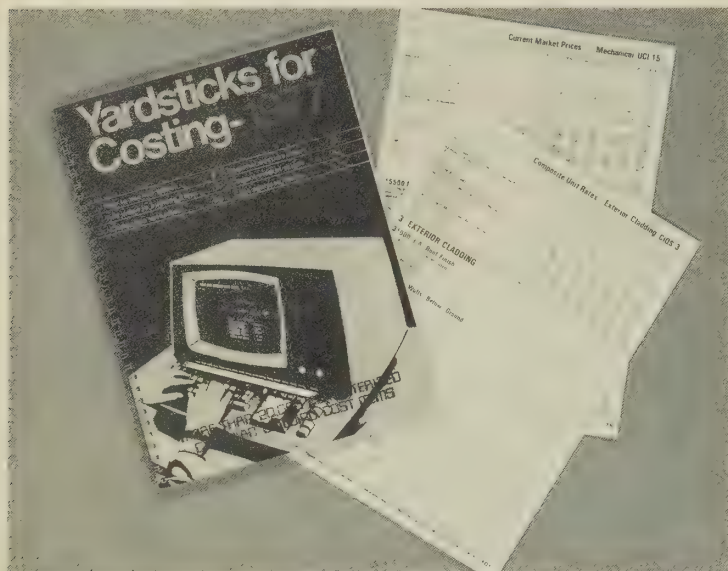
Insurance Corporation of British Columbia — cost consulting for 17 claim centres, site monitoring and accounting for final account work for 8 centres in the lower mainland area and assistance in negotiation of stipulated sum contracts for 4 other centres. Projects in the lower mainland area were constructed on a cost plus fixed fee basis, in order to commence construction and design in parallel.

Language Training Centre, St-Jean, Quebec — provision of full cost planning and control services, with master scheduling on this \$90 million project.

Life Cost Study — analysis of university building life costs, development of analysis methodologies, examination of HVAC system life costs for a selected university building, analysis of cyclical renewal requirement for the upgrading and maintenance of university buildings and analysis of the effect of building maturity on operation and maintenance costs.

Maison du Citoyen, Hull — complete project management on behalf of the municipality for this \$15 million multi-use municipal complex. Services include project coordination, cost and schedule control.

Subsidiaries/Affiliations



Internationally, Hanscomb Roy Associates, its subsidiaries and affiliates have jointly and individually participated in projects in many countries, some of which are:

Abu Dhabi
Bahrain
Barbados
Belgium
Botswana
Cameroon
Dahomey
Egypt
Fiji
France
Ghana
Greece

Holland
Hungary
Indonesia
Iran
Iraq
Italy
Ivory Coast
Jamaica
Japan
Kenya
Kuwait

Canadian Air Structure Research & Engineering Ltd.

390 Bay Street, Suite 2601
Toronto, Ontario
and at: Montreal, Vancouver

Construction Data Systems Ltd.

433 Place Jacques Cartier
Montreal, Quebec
and at: Toronto, Vancouver

Hanscomb Associates Inc.

221 N. LaSalle Street
Chicago, Illinois 60601
and at: Anchorage, Atlanta, New York, Newport Beach,
Seattle, Washington, Lagos-Nigeria

Hanscomb Morter Associates

P.O. Box 5362
Manama, Bahrain

Hanscomb Partnership

27 Bolton Street
Mayfair, London, U.K.
and at— Athens, Coleraine, Deventer, Edinburgh,
Lilongwe, Rome, Swansea

Hanscomb Roy International Ltd.

One Woodbourne Place
Pembroke 5-33, Bermuda

Industrial Economics (HRA) Ltd.

415 - 14th Street N. W.
Calgary, Alberta
and at: Montreal, Toronto

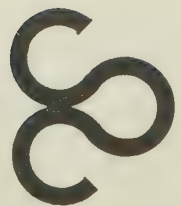
The CEREC Group Ltd.

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GROUP EIGHT ENGINEERING LIMITED



GROUP EIGHT ENGINEERING LIMITED

Consulting Professional Engineers for Mechanical, Electrical, Structural and Civil Engineering.

Group Eight Engineering was formed in 1974, by merging the firms of Atkinson, Parazader, Lostracco and Bannerman, Consulting Civil and Structural Engineers, (established 1960) and Walter Eull and Elliott, Consulting Mechanical and Electrical Engineers, (established 1964). The firm has a staff of 15 Professional Engineers, 20 technologists and technicians and support staff of drafting and field inspectors for a total of 50 people.

Over 50% of the fee income is from repeat business at Dofasco, Stanley Steel (Hamilton) and General Motors, St. Catherines. The remainder is from architects and commercial building accounts in the Hamilton area.

The staff involved in the study would be as follows.

Mr. G.E. Elliott, P.Eng. - Graduated Queen's University in 1954, with a Bachelor of Science in Mechanical Engineering. Entered the consulting field in 1957, and has been responsible for all aspects of the Mechanical design of plumbing, heating, air conditioning and refrigeration systems for hundreds of building and systems during the twenty-three year span. Mr. G. Elliott, is the partner responsible for energy studies at Group Eight Engineering. Mr. G. Elliott, is a senior partner in Group Eight Engineering and would be responsible for the engineering portion of the study.

Mr. M.C. Nolan, P.Eng. - Graduated Queen's University in 1971, with a Bachelor of Science in Electrical Engineering. Worked at Dofasco as an Electrical Design Engineer and Project Manager. Entered the consulting field in 1975, where he was in charge of the electrical design for a major steel mill installation in Trinidad. Mr. M. Nolan has been responsible for all aspects of electrical engineering work including concept proposals, comparative cost and feasibility studies, design and field inspections. Mr. M. Nolan would be responsible for the electrical system portion of the study.

RECENT PROJECTS

Page - 2 -

Provincial Office Tower and Convention Centre - Hamilton, Ontario.

Hamilton Art Gallery

Addition to Mohawk College

Dofasco Recreation Complex

Dofasco Central Shipping Building

ARENA PROJECTS

Hester Street Arena	-	Hamilton	-	2500 seating
Rosedale Arena	-	Hamilton		
Aurora Arena	-	Aurora	-	3000 seating
Lions Club Rink	-	Stratford		
Dufferin Park Arena	-	Stratford		
Mitchell Arena	-	Mitchell		
Central Arena	-	Burlington		
North Park Arena	-	Brantford (2)		
Dofasco Recreation Centre	-	Hamilton		
Kiwanis Park Arena	-	Burlington		
Cambridge Arena	-	Cambridge		

COLISEUM EXPERIENCE

Group Eight Engineering has been involved in three previous proposals for this facility. As part of the work on those proposals, and the Convention Centre, we visited and/or analysed the facilities at Cleveland, Minnesota and Edmonton.

We have in our files, the breakdown of capital and operating costs for the facilities in Minnesota and Edmonton. We have recently completed a structural study of Ivor Wynne Stadium for the City of Hamilton, and as a result are intimately familiar with this facility. We feel we have the Engineering experience and related project experience to make a positive contribution to this study.

REFERENCES

Mr. D. Samson, P.Eng.	-	Vice-President Engineering Dominion Foundries & Steel Limited Hamilton, Ontario (416) 544-3761
Mr. G. Kellner, P.Eng.	-	Ministry of Government Services Chief Mechanical Engineer Toronto, Ontario (416) 965-2806
Mr. K. McIntyre	-	Vice-President Mohawk College (416) 389-4461
Mr. A. German	-	Architect - City of Hamilton 527-0241

GARY E. ELLIOTT

Group Eight Engineering Limited

Education:

B.Sc. in Mechanical Engineering, Queen's University, 1954

Professional Associations:

ASHRAE at present; also past president of Hamilton chapter
Air Pollution Control Association
Association of Professional Engineers of Ontario
Engineering Institute of Canada
Association of Consulting Engineers
Is a designated consulting engineer

Experience:

Mr. Elliott spent three years at Honeywell Controls as an instrument and controls specialist. He entered consulting in 1957 and has been responsible for the mechanical design of plumbing, heating, air conditioning and refrigeration systems during the 23 year span to present.

He has long been associated with refrigeration designs for arenas. Projects have included freon, brine and ammonia circulation systems. He designed one of the early ammonia circulation systems for the Fearman Meat Packing Plant in Burlington and received an engineering award for the Heat Pump system at the Sherwood Composite School in Hamilton.

Mr. Elliott has been responsible for energy studies and reports at Group Eight Engineering Limited. This work includes energy audits, cost study analysis, capital cost alternatives and system recommendations. These studies have resulted in over 20% energy savings at the Guelph Correctional Centre, the Wentworth Detention Centre, and the Hamilton YMCA Complex.

MICHAEL C. NOLAN

Group Eight Engineering Limited

Education:

Honours B.Sc. in Electrical Engineering, Queen's University, 1971
Masters Business Administration, McMaster University, 1979

Professional Associations:

P. Eng. - Association of Professional Engineers of Ontario
Institute of Electrical and Electronics Engineers
Association of Iron and Steel Engineers

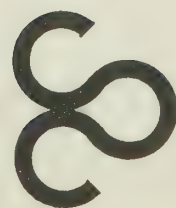
Experience:

Mr. Nolan worked at Dofasco as an Electrical Design Engineer and Project Manager. He entered the consulting field in 1975, where he was heavily involved in process electrical design for Stelco's Lake Erie development and where he was in charge of the electrical design for a major steel mill installation in Trinidad.

He has been responsible for all aspects of electrical engineering work including concept proposals, comparative cost and feasibility studies, design and field inspections.

He has had business experience in the areas of cost accounting, auditing, project cost control, evaluation of investment and financing alternatives, market studies, and sensitivity analysis.

ECONOMETRIC RESEARCH LTD.



Below is a list of projects undertaken by Econometric Research in the past five years.

- (1) Analysis and determination of the impact of different provincial government expenditures in Ontario by Program and Department.
- (2) Up-dating of the provincial input-output table of Ontario.
- (3) Impact of tourism on the economy of Ontario and its region.
- (4) Determination of the structure of production and sectoral efficiency in Ontario.
- (5) The construction of a forecasting model of the chemical industry in Canada.
- (6) Determination of input column and output row for the electricity and the utility sectors in Ontario.
- (7) A forecasting model of tourism in Ontario.
- (8) Impact study of the proposed convention centre in Toronto.
- (9) Impact study of a tourist complex development in the Kiwartha lakes district of Ontario.
- (10) Feasibility study of a large petro-chemical complex in Saudi Arabia.
- (11) Determination of a feasible plan for the development of small scale food industries in Kuwait.
- (12) The development of an industrial plan for Nigeria.

A. A. KUBURSI

<u>Degree</u>	<u>University</u>	<u>Field</u>	<u>Date</u>
B.A. (Distinction)	American University of Beirut	Economics	1963
M.A. (Distinction)	American University of Beirut	Economics	1964
M.S.	Purdue University	Economics & Statistics	1966
Ph.D.	Purdue University	Economics	1969

Academic and Other Relevant Appointments

<u>Date</u>	<u>Employer</u>	<u>Title</u>
1964-1969	Purdue University, U.S.A.	Instructor
1967-1969	Saint Joseph University, U.S.A.	Assistant Professor
1969-1974	McMaster University, Canada	Assistant Professor
1974-present	McMaster University, Canada	Associate Professor
1974-1975	University of Cambridge, England	Senior Academic Visitor to the Faculty of Economics and Politics

Business Appointments

Econometric Research Ltd.	President
DLR Consultants Ltd.	Director
KUBARAH Investments Ltd.	Director
Limelight Developments	Director

Consulting Activities

Date

- 1971 (1) Department of Treasury and Economics, Ontario Economic Analysis Branch
- 1972 (1) Government of Ontario, Office of Economic Policy
(2) Government of Ontario -- Regional Development Branch
(3) Canadian Chemical Producers Association
- 1973 (1) Government of Ontario, Econometric Research Branch
(2) Government of Ontario, Economic Council of Ontario
(3) Dupont of Canada
- 1974 (1) Government of Ontario, Central Statistical Division
(2) Government of Ontario, Economic Council of Ontario
(3) Ministry of Planning -- Iraq
(4) OAPEC -- Kuwait
- 1975 (1) Government of Ontario, Central Statistical Division
(2) Government of Ontario, Economic Council of Ontario
(3) International Labour Organization
- 1976 (1) Government of Ontario, Ministry of Industry and Tourism
(2) Ontario Hydro
- 1977-80 (1) Government of Ontario, Ministry of Industry and Tourism
(2) Ontario Hydro
(3) Ministry of Transport and Communication
(4) United Nations: Economic Commission for Western Asia
(5) United Nations: Industrial Development Organization

Publications

Articles

"The Interest Rate and The Economy", an Appendix to Chapter Six of Edward Ames, Income and Wealth, Hold, Rinehart and Winston, 1969, pp. 195-203

"Sectoral Characteristics of the Ontario Structure of Production", Ontario Economic Review, Special Issue, February, 1972

"Sectoral Performance Indices of the Ontario Structure of Production", in Papers and Proceedings of the European Meeting of the International Econometric Society (Special Issue of Econometrica), 1972.

"Important Structure of Lebanon: A Quantitative Analysis", Journal of Developing areas, (October, 1974), pp. 87-98.

"Programming Models of Government Expenditures", Public Finance, Volume XXVIII, No. 1, 1973, pp. 84-94.

"Evaluating the Differential Impact of Government Expenditures Classified by Department", Socio-Economic Planning Sciences, Volume 8, 1974, pp. 101-108.

Articles

"Sub-Provincial Regional Income Multipliers in the Ontario Economy: An Input-Output Approach", Canadian Journal of Economics, Volume VIII, No. 1, (February, 1975) pp.67-92. (With J. R. Williams and P. J. George).

"Vocational and Technical Education and Developmental Needs" in Proceedings of the Kuwait Conference on Human Resource Development in the Arab World, 1975.

"Educational Strategy: The Lessons to Learn", Thought, No. 12, (July 1977), pp.175-190.

"Induced Adjustment and the Role of Agriculture in Economic Development: A Case Study of Egypt and Syria" in Papers and Proceedings of the United Nations Conference of Technology Transfer to the Arab World, October 9-14, 1977, Beirut.

Books, Monographs and Reports

Input-Output Analysis of Fiscal Policy in Ontario with John Bossons and Robin Boadway, 1977, Ontario Economic Council.

Translation of National Socio-Economic Objectives Into Manpower Requirements, 1975 (APD).

Regional Aspects of the Ontario Structure of Production with Special Emphasis on the Iron and Steel Industry, submitted to the Government of Ontario -- Regional Development Branch, 1972. (With J. R. Williams).

The Impact of Investment Tax Credit in Ontario, submitted to the Econometric Research Branch, Government of Ontario, 1973.

Gross Domestic Product of Ontario: By Industry and Region, submitted to the Econometric Research Branch, Government of Ontario, 1975.

Macroeconomic Theory and Policy, Prentice-Hall (forthcoming)

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